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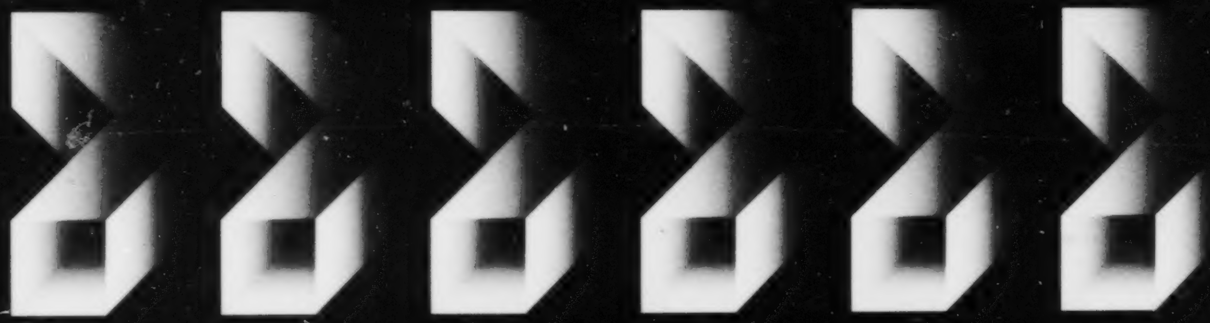

EVALUATION OF THE TOBACCO DEMAND REDUCTION STRATEGY

FINAL REPORT

February 1998

Canada

MISSION STATEMENT

The Evaluation Group helps Health Canada serve Canadians better by providing objective information and advice about the effectiveness of departmental activities and services.

ÉNONCÉ DE MISSION

Le Groupe de l'évaluation aide Santé Canada à mieux servir les Canadiens et les Canadiennes en offrant une information et des conseils objectifs sur l'efficacité des activités et des services du Ministère.

Executive Summary

This report presents the results of the evaluation of the Tobacco Demand Reduction Strategy (TDRS). The evaluation was conducted in accordance with the Terms of Reference approved in November 1996 by all the Assistant Deputy Ministers in Health Canada who had responsibility in the implementation of the TDRS and the Associate Deputy Minister. The evaluation was coordinated by the Strategic Planning and Evaluation Division, Strategic Planning and Review Directorate, Policy and Consultation Branch, Health Canada.

TDRS was part of the National Action Plan on Smuggling (NAPS) launched by the Federal Government on February 8, 1994. The Strategy was to last until March 31, 1997 and its objective was, through programs, public education and enforcement, to minimize the anticipated negative impact of tax cuts on the consumption of tobacco products, particularly in those groups most likely to initiate or increase tobacco use as a result of lower prices. Health Canada was assigned the responsibility for implementing the Strategy.

A total of $104 million was spent under the TDRS over the three-year period.

Under the Strategy, Health Canada developed a mix of programs and activities which were essentially designed to help non-smokers stay smoke-free (prevention), to encourage and help those who wanted to quit smoking to do so (cessation), and to protect the health and rights of non-smokers (protection). The Strategy had eight components:

1. Legislation and enforcement
2. Public Education and Awareness
3. Community Action Initiatives
4. Access to Information
5. Contributions to Aboriginal people
6. Message Promotion
7. Research
8. International Initiatives/ Coordination and Evaluation.

Youth, women, other specific priority groups and the public were identified as target groups. All branches within Health Canada played a role in the implementation of the TDRS. The responsibility for coordinating and evaluating Health Canada's TDRS activities rested with the Policy and Consultation Branch.

The Objectives of the Evaluation

Ideally, the TDRS should be evaluated in terms of its impact on smoking behaviour. However, this was not possible because, first, the TDRS was implemented in an environment where many other anti-smoking activities were taking place, making it impossible to isolate and quantify its specific contribution in terms of changes in smoking prevalence and tobacco consumption.

Secondly, at the time the evaluation started, the TDRS had been in existence for only two and one-half years, which is generally considered to be too short a time for program outcomes, such as changes in people's behaviour, to be observed. For these reasons, the evaluation essentially focussed on what was undertaken, the outputs produced, and the impacts on users of the outputs (e.g., tobacco users, non-smokers, employers, retailers, etc.).

The Approach to the Evaluation

The approach taken was to review each area of activities to see what was accomplished, whether the activities were consistent with the overall TDRS objectives and whether there was evidence that intermediate objectives were being achieved. These reviews were conducted under contract by independent private consulting firms.

Jamieson, Beals, Lalonde Inc. conducted the evaluation of the Public Education and Awareness, the Community Action Initiative and the Access to Information components.

Ekos Research Associates reviewed the Research component, conducted focus groups with representatives of Aboriginal organizations that received contributions from the Medical Services Branch and conducted interviews with Health Canada officials, Non Governmental Organizations (NGOs) and other external stakeholder representatives and provincial government officials involved in tobacco control.

Madhu Joshi & Associates reviewed data already collected through various surveys that provided information on broader indicators such as smoking prevalence and consumption, people's awareness of the dangers of tobacco smoking and of environmental tobacco smoke (ETS), changes in municipal bylaws and anti-smoking policies in school and other settings. The purpose was to obtain an appreciation of the evolution of the overall tobacco situation in Canada.

The impact of the tobacco enforcement program implemented by the Health Protection Branch (HPB) was assessed by Goss Gilroy Inc. under contract with HPB.

As a final step in the process, the findings of all these individual studies were summarized and submitted to a panel of experts in fields related to tobacco control to obtain their views and suggestions.

The approach taken for this evaluation is consistent with the evaluation framework that was developed for the TDRS in 1994.

Evaluation Results

Program Design and Resources

The initiatives implemented under TDRS were found to be consistent with the Strategy's objectives and with overall departmental and federal orientations. The selection of target groups was also appropriate even though many of the people interviewed thought that a higher proportion of the resources could have been dedicated to youth.

Resource levels were considered as more than adequate by the vast majority of interviewees, except among First Nations representatives who considered that the amounts they received were inadequate considering the severity of the smoking problem among Aboriginal people. Even if there were mixed of opinions concerning the allocation of resources among prevention, protection and cessation, most people seemed to think that the emphasis should be on prevention.

Legislation and Enforcement

The Tobacco Sales to Young Persons Act (TSYPA) came into force on February 8, 1994. The purpose of the Act was to restrict the access of young people to tobacco products. In early 1994, the Health protection Branch, responsible for enforcing the provisions of the Act, launched an information campaign to inform tobacco retailers of their obligations under the TSYPA and subsequently developed and implemented the National Enforcement Program.

Two national surveys conducted in 1995 and 1996 for the Health Protection Branch showed that there is a high degree of awareness among retailers of the requirements of the legislation such as the age limits, proof of age, signs and monetary fines, and that the degree of awareness has increased from 1995 to 1996, indicating that the information campaign was successful. For example, between 1995 and 1996, the average level of awareness of legal age limits increased from 84% to 87%, the average level of awareness of the requirement to post legal age limit signs in tobacco retail outlets from 87% to 91%, and the awareness of monetary fines for violating legislation from 85% to 93%.

Under the Federal Enforcement Program, an amount of $11.1 million was spent on the program from 1994 to 1997, $2.8 million of which was in contribution to provinces who agreed to participate in the joint enforcement of the provincial and federal legislation. At the time of the evaluation, six provinces had signed an agreement with the federal government to enforce the TSPYA. The results of national surveys conducted in 1995 and 1996 on levels of compliance with the TSYPA indicate that, in 1996, retailer compliance with respect to sales to minors was 60.5%, a 12.6% increase over the 1995 rate of 47.9%.

There is evidence however that despite the increased retailer compliance across the country, there do not yet appear to have been reductions in youth access to cigarettes and, therefore, reduced rates of smoking among youth. Youth smoking trends in recent years indcate that youth smoking rates are increasing.

The evaluation found that there is a continued need for the Federal Enforcement Program. As there is a liability issue related to enforcing an Act, there must be some means in place of enforcing the federal (or the provincial) tobacco legislation. If compliance activities cease, there is some concern that the compliance rate will decrease.

Public Education and Awareness Program (PEAP)

This component undertook a variety of activities including research and resource development. These activities are specific prevention, cessation and protection programs aimed at the specific TDRS target groups including priority groups. They were intended to be developed and implemented in cooperation or in partnership with other organizations (schools, NGOs, businesses, unions, First Nations, etc.) or with professional groups (physicians, teachers, nurses, etc.).

An in-depth review of a sample of thirty projects (out of 146) found that all of the projects reviewed were consistent with the goals of the TDRS in the area of prevention, cessation, and protection. It was also found that the program has:

- yielded valid contributions to knowledge on emerging and under-researched issues, such as ETS, gender differences in tobacco consumption knowledge, attitudes, behaviours, etc.;
- demonstrated a commitment to structured, quality program development processes; and
- generated improved knowledge on methods and strategies to reach priority populations.

It is difficult to accurately measure the strategic contribution that specific projects have made with respect to TDRS's priority issues and/or populations. While no evidence was found of unjustified duplication or overlap, a formal strategic plan, linked to an information-sharing/monitoring mechanism at the outset of the TDRS could have been helpful in creating more synergy and a sharper focus.

People (Health Canada consultants, contractors and other stakeholders) interviewed in relation to PEAP projects consistently supported the kinds of approaches used in, and the continued relevance of PEAP style projects to improve public education and awareness of tobacco consumption and control. According to interviewees, further research, ongoing information-sharing, and continued program/activity delivery beyond this initial developmental stage is needed, because the issues that the TDRS has addressed are still highly relevant to Canadians, the needs of priority populations still exist, and other sources of funding have not been identified.

Community Action Initiative Program

Funding has been made available under the TDRS to provide time limited funding (contributions) for local, regional and national projects that develop and strengthen the ability of communities and community-based organizations to identify and address tobacco issues. Two hundred and forty (234) community projects were funded via the Community Action Initiative Program (CAIP) for a total amount of $20 million.

A representative randomly selected sample of 40 CAIP projects were examined in this evaluation and it was found that, overall, CAIP projects were consistent with the overall objectives of the TDRS and generally consistent with the initial CAIP funding criteria. Projects included a mix of prevention, cessation, and protection goals. Generally, CAIP projects had met, or were meeting their short-term objectives in terms of doing what they were supposed to do and reaching their intended target audiences.

CAIP has contributed to increased levels of community development skills, resulted in spinoffs in other aspects of individuals' lives (e.g., improved self-esteem and self-worth of priority populations), and improved community living (e.g., helped to create municipal tobacco control bylaws). Independent surveys conducted on behalf of the program estimated that CAIP projects have reached over 350,000 people through training events, cessation seminars, exhibitions, presentations, etc. It has been calculated that for each dollar provided through the CAIP program, 23 cents was provided in additional resources from volunteer time, support-in-kind and other funding resources.

There is a good deal of information on projects activities but, unfortunately, there is little on the impact that project activities had on target populations. A key objective of community funding is to build capacity at the community level, which implies continuation of activities after government funding has ended. Over 90% of projects expected to continue their activities but, for most of them, it would be at a reduced level. Given that CAIP funding represents over 80% of projects resources, it may prove difficult for them to continue, even at a reduced level.

Access to Information

In order to enhance the dissemination and exchange of tobacco-related information the TDRS provided additional funding for the National Clearinghouse on Tobacco and Health (NTCH). Health Canada contributed $3.75 million of TDRS funding to the NCTH over three years for NCTH operations and administration. This represents more than 90% of NCTH's budget.

The NCTH used the TDRS funds to expand its original inventory of core products and services under the TDRS, to add new products and services, and to expand the promotion of its products and services. Even though the NCTH's mandate was expanded to include the direct provision of services to the general public in order to meet Health Canada's funding criteria, the tobacco control community continues to be the NCTH's primary client group. Non-profit organizations remain the NCTH's major client group, followed by public health units and government departments at all levels.

Surveys of clients indicated a high level of client satisfaction with Clearinghouse services. There seems to be a general agreement among the tobacco control community that there is an ongoing need for the types of services provided by the Clearinghouse. The amount of funding and the role of NCTH as an ongoing vehicle to facilitate information dissemination on tobacco remain key issues and, at the time of the evaluation, were still the object of discussions between HCTH and Health Canada.

Contributions to Aboriginal People

As part of TDRS, an amount close to $4.9 million was made available to First Nations and Inuit for anti-smoking activities. Of this amount, national Aboriginal organizations received $3.3 million for projects of national scope while $1.7 million was allocated for projects in Aboriginal communities. This contribution program was administered by the Medical Services Branch. In total there were five national projects and 104 community or local projects.

Three focus groups were conducted, one in each of Ottawa, Thunder Bay and Saskatoon, as part of this evaluation. The participants were all First Nation and Inuit persons involved with the TDRS. The Ottawa group was comprised of members of national organizations, while the remaining two groups were made up of community or tribal organization members.

All participants in the focus groups were aware of the TDRS but persons at the national level were much more aware of the scope of the TDRS, how long it had been in existence, and when it would end than those at the community or tribal organization. At the national level, contributions were used for research, resource development and for training people in tobacco control at the community level. Projects at the community level included such activities as poster contests, anti-smoking materials and newsletters. The main focus of these activities was cessation, with a minor focus on prevention. Generally, the main target group at the community level was youth.

Respondents in the focus groups felt that community-based projects, notably workshops at the community or tribal council level, were successful in raising awareness of non-traditional tobacco use. Of importance as well were the capacity-building effects of the TDRS for sustained awareness efforts. TDRS had a significant impact, according to some participants, on Health Centres which now give a higher priority to tobacco issues.

Generally, participants at the national and tribal council levels were satisfied with the way the TDRS was managed by Health Canada. They had no problems with liaising with MSB officials, nor did they indicate having any problems with the reporting requirements. However, participants at the community level expressed some dissatisfaction about a) the lack of consultation before the strategy was put in place, b) the way money was disbursed and c) the reporting requirements which they found onerous.

As other health and social issues are considered by many to be of greater importance, smoking is often not seen as a priority and it was felt that without TDRS type funding, smoking would return to its former status as a low priority health problem among Aboriginal populations. All participants felt that funding levels were inadequate to combat such a large issue and that any strategy to combat tobacco use should be extended to 5-10 years.

Message Promotion

To support the objectives of the TDRS, Health Canada launched two media campaigns in 1995 and 1996. The media campaigns were developed by the Research, Program Policy and Planning Directorate, Marketing and Partnership Division of the Health Programs and Promotion Branch. The 1995 and the 1996 campaigns were targeted primarily at the 11-17 age group. The overall objective was to "denormalize" tobacco by increasing awareness of the benefits of a tobacco-free society. This included communication of the harmful effects of ETS.

Tracking studies were undertaken to measure the impact of the campaigns on the knowledge, attitudes and behaviour. These studies found that a very high percentage of adults and teens were aware of the adverse health effects of tobacco and of the effects of ETS on babies and children. Similarly, a very high percentage of respondents felt that the Health Canada ads clearly got the message out with respect to the health of smokers.

Because of many anti-smoking campaigns before and concurrent with TDRS, it is not possible to attribute changes in public awareness and attitudes to specific campaigns (including TDRS). . The Health Canada's campaigns were based on appropriate research and testing and were considered successful in terms of visibility and recall. However, there have not been significant shifts in the beliefs and attitudes related to smoking from 1995 to 1996.

Between 15% and 20% of adult smokers and non-smokers and about 40% of teen smokers believe that tobacco is not as addictive as other drugs such as cocain and heroin. There is probably more opportunity for educating early teens about the relative addictiveness of tobacco.

Research

Apart from the research undertaken under the Public Education and Awareness Program, a total of 25 research projects were funded under the TDRS: 11 through the Health Protection Branch and 14 through the National Health Research and Development Program (NHRDP). One of the purposes of the research activities funded through TDRS was to provide information that would assist in the designing of programs and the evaluation of other TDRS components. At the time of this evaluation, nine of the 11 HPB projects and five of the 14 NHRDP projects had been completed. The amounts spent on research projects were $4.5 million for HPB and $2.8 million for NHRDP.

For both HPB and NHRDP, the vast majority of research projects involved descriptive research such as surveys, secondary data analysis, literature reviews, focus groups, econometric analysis of existing data and interviews..

The HPB research projects were contracted out by the Branch for specific purposes. For example, survey was undertaken to measure the knowledge of retailers regarding the Tobacco Sales to Young Persons Act and to measure the effect of the enforcement program. Other projects were undertaken to better understand the attitudes of children and youth aged 10 to 19 years towards smoking and their use of tobacco products or to help develop policies, legislation or regulations.

NHRDP projects were funded through the solicitation of proposals and selected on scientific merit. While the designing of programs or the evaluation of TDRS components were not specific objectives, TDRS objectives were taken into consideration in the funding process.

The research conducted under the TDRS is generally considered to have been successful in collecting good quality data and there is evidence that the results have been used. The Survey on Smoking in Canada and Youth Smoking Survey are said to have provided excellent data. In addition, the research supported by TDRS highlighted areas where more research was needed.

Expert panel members recognized the considerable amount of research undertaken but regarded the dissemination of research results as deficient. Panel members noted that in some cases, reports were completely unavailable; in others, only highlight reports or no reports at all were ever published, and much of the commissioned research has not been submitted to scientific journals.

Social Context

Even though it is virtually impossible to attribute the impact of the TDRS on smoking behaviour at the national level, a legitimate question that can be asked is whether there have been changes in the "tobacco control environment" since the introduction of the TDRS and whether these changes were in the right direction. Considerable effort was made in this evaluation to review and analyse existing data on smoking prevalence and consumption, on smoking policies, municipal bylaws, etc.

1. Prevalence

With the exception of a few years, overall smoking prevalence has been steadily declining from 1965 to 1996 for both men and women aged 15 and over except for males aged 15-19. In total, there were 60,000 fewer smokers aged 15 and over in Canada in 1996 than in 1991, but there were 80,000 more of them in the 15-19 age group (men and women). This seems to support the view that, despite of the TDRS (and other anti-smoking activities) smoking among youth is on the increase.

Despite the reduction in tobacco taxes in 1994 and an expected increase in smoking prevalence in response to lower cigarette prices, overall smoking prevalence has declined between 1991 and 1996. While it may not be possible to attribute this decline solely to TDRS, it could be due to a combination of all anti-smoking campaigns, restrictions on smoking in public places, anti-tobacco regulations, and advice provided by public health and medical professionals.

2. Relationship between cigarette prices and smoking behaviour

None of the many surveys undertaken under the TDRS provide sufficient information to determine the effect of the 1994 price reduction on smoking behaviour. Only the tracking studies undertaken to measure the impact of the media campaigns provide some information on the changes in smoking behaviour after the drop in cigarette prices. However, the data do not show any clear trends. According to these surveys, only 5 to 6 percent of the adult (18+) smokers are smoking more after the price reduction and 15 to 18 percent are smoking less. On the other hand, 20% of teens smokers reported in 1995 and 27% in 1996 that they are smoking more. Meanwhile 18 and 16 percent of teens reported that they were smoking less.

These data are consistent with the possibility that the short term price elasticity of demand for cigarettes is less among adults than in teens. Adults have sufficiently large income available to them for cigarettes and have attained a level of smoking to satisfy their needs; small changes in cigarettes prices do not affect their smoking habit significantly. However, teens have comparatively less income available for cigarettes and the amount smoked by teens is still on the increase. As a result, changes in cigarettes prices are more likely to affect cigarette consumption by teens.

3. Municipal Bylaws

On the basis of surveys conducted for Health Canada, the number of municipalities with bylaws on smoking in public places has increased by almost 33% between 1991 and 1995. Also, during the same period, the number of municipalities with restrictions on smoking in hospitals has almost doubled.

4. Smoking Policies in Other settings

In 1990 (before the introduction of TDRS), about 98% of schools had a non-smoking policy in one form or another. This percentage has more or less remained the same. However, between 1990 and 1995, the number of schools with a total ban on smoking for students increased from 66% to 83%.

Specific surveys conducted in 1995 as part of a larger national study on smoking policies in a number of public settings show that a large percentage of health care institutions, day care centres and large commercial settings have policies to restrict smoking and reduce exposure to ETS. Almost all (93%) licensed daycare centres have either written or unwritten smoking policies and 47% of them ban smoking both indoors and outdoors.

Overall, 96% percent of all health care institutions surveyed have either a written or an unwritten smoking policy. Most of the commercial establishments (typically with annual sales in excess of $100 million) surveyed have some form of smoking policy.

Relevant data were not available to determine whether the TDRS has led to a decrease in the exposure from ETS in homes and workplaces. However, it can be inferred that increased smoking restrictions has led to decreased exposure to ETS in workplaces over the last few years. However, much of this decrease has occurred before the establishment of TDRS. It is not possible to estimate the changes in the exposure to ETS in homes.

Objectives Achievement and Impacts and Effects

Overall, stakeholders interviewed for this evaluation perceived the TDRS as having been only moderately successful in achieving a number of its objectives. Greatest success was noted in the area of improved knowledge and attitudes, but these were often seen to have been influenced by factors outside of TDRS. It is impossible to know what would have happened in the absence of TDRS. There was also a strong belief that the objectives of the TDRS were not realistic for a three-year initiative.

Among the positive effects of the TDRS, interviewees cited a more forceful anti-tobacco lobby, additional community resources and programs aimed at TDRS target groups and some continuity to tobacco reduction across Canada. It was also felt that, in the long term, there would be changes in peoples' behaviours and reduced take-up as a result of the TDRS. Knowledge that was generated through TDRS will assist those working in the area of tobacco for a long time.[1]

Overall, most respondents believe that the mix of strategies undertaken by TDRS in an overall national tobacco strategy with a population health focus was the most effective approach. Having an ongoing national anti-tobacco strategy is important to raise the profile of issues. Strategies crucial to this mix would include: simple and extremely strong legislation (applied to the tobacco industry as well as ETS); enforcement of legislation with the appropriate resources; relatively less emphasis on cessation; focus on youth and prevention; international cooperation and collaboration; higher profile to research; and better division of labour between provincial/territorial and federal governments. Community projects are important but there is a need to evaluate and disseminate the best practices. The appropriate mix of strategies should depend on the needs and capacities of each province.

Implementation and Coordination of TDRS

Health Canada's managers who were interviewed for this evaluation were asked to comment on the implementation and coordination of the TDRS. Generally, managers involved in the TDRS appeared to be satisfied about the coordination between policy and programs or the role played by the Policy and Consultation Branch (PCB). Relatively few, about 25%, felt that coordination was insufficient. On the positive side, it was mentioned that PCB played a key role in ensuring that the activities undertaken were consistent with the interests of the Department and in improving the coordination between branches of Health Canada on the issue of tobacco control. On the negative side, some respondents found that there have been instances of duplication because of lack of coordination and communication.

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[1]. It should be noted that, at the time of writing this report, the federal government has committed $100 million over the period 1997/98 to 2002/03 for federal tobacco control activities.

Federal and provincial/territorial respondents were split over whether TDRS has been coordinated with provincial/territorial and NGOs' anti-tobacco activities. Most respondents felt that the TDRS was implemented in a manner consistent with provincial/territorial and NGOs activities. Coordination has taken place through committees such as the Canadian Council on Smoking, a working committee established with external partners on the subject of advertising and promotion, and through provinces where negotiations for joint-enforcement programs were being undertaken.

There is a general perception among external stakeholders (provincial/territorial and NGO representatives) that the TDRS failed to effectively coordinate and integrate the activities of provincial and municipal governments, and of the voluntary health sector.

The fact that a large sum of money was made available in an "unprepared environment" and for only three years created many problem. There is a broad consensus that, due to such a short period of time, departmental staff had in fact little time to plan, get organized and implement the TDRS. It took almost a year before many of TDRS initiatives could be implemented in the field and reach the intended target groups. Subsequent reductions in TDRS funding created additional problems and uncertainty. For many external stakeholders, there was not enough time for consultation and coordination with provinces and the voluntary sector.

Many of the stakeholders consulted, both within and outside Health Canada, deplored the lack of an overall plan for the Strategy. Such a plan would have helped many to understand the linkages between the various components of the TDRS and, perhaps, alleviated the perception among a number of stakeholders that the TDRS was uncoordinated and, at times, led to duplication.

Many external stakeholders (provincial/territorial and NGO representatives) had the perception (or the expectation) that the TDRS was a "national" strategy instead of a "federal" strategy. This may explain why they felt that they had little to say in the final decisions.

Conclusions

1. The initiatives implemented under the TDRS were consistent with the Strategy's objectives and with overall departmental and federal orientations. The multifaceted approach used and the selection of target groups was generally regarded as appropriate by departmental staff, experts, national organizations and provincial stakeholders interviewed even though many thought that more emphasis could have been put on youth.

2. Smoking prevalence among the population 15+ declined from 31% in 1991 to 27% in 1996 (General Social Survey). There was a decline in all age groups except among males

15-19 whose smoking prevalence increased from 20% to 24%. Smoking prevalence among females in the same age group remained stable at 26%. The data currently available does not permit conclusion as to the effect the TDRS may have had on smoking prevalence or tobacco consumption.

3. An evaluation of the program developed to enforce the Tobacco Sales to Young Persons Act shows that over 90% of tobacco retailers are aware of the legislation. The degree of compliance among retailers increased from 47.9% in 1995 to 60.5% in 1996. Despite this, there is evidence that smoking prevalence continued to increase among the under age group. The evaluation recommended that the program be continued.

4. The tobacco related research undertaken by Health Canada has provided significant new knowledge about smokers' behaviour and on methods and strategies to reach priority populations. There is evidence that the results have been used in designing approaches to various target groups and in the development of policies and of the new legislation.

5. Contributions to Aboriginal national organizations has helped to develop the research capacity of theses organizations and contributions to Aboriginal communities allowed them to introduce anti-smoking programs and increase awareness among Aboriginal people. It is suggested that future funding be for a longer period of time and that a higher proportion of contributions be allocated to community projects.

7. Projects funded under the Public Education and Awareness and under the Community Action Initiative Programs have reached thousands of people in communities across Canada. It is not known, however, what the long term impacts of community projects are.

8. There is general agreement that in tobacco intervention, three years is too short a time-frame to achieve significant impacts, and efforts must be sustained over a longer time-frame to affect behaviour. Therefore, it would be preferable to have longer term commitment to anti-smoking programs even if their overall resource level is lower.

RECOMMENDATIONS

It is recommended:

1. That future funding of anti-smoking programs should be for a longer time period (e.g., five years);

2. That an accountability framework be developed, indicating clearly the objectives to be achieved, both short term and long term, and the indicators of performance;

3. That the focus continues to be on youth;

4. That, in the future, an evaluation committee, consisting of a representative of each major component, be established so that evaluations at the component level complement the evaluation at the strategy level. Such a committee will ensure coordination in data collection and a common understanding of the evaluation requirements.

5. That an assessment of the long term effect of community-based interventions be made. As a start, a review of community projects evaluations funded under the TDRS should be made and a plan to conduct a long term assessment of the impact of this type of projects be developed;

6. That a review of the research undertaken under the TDRS be made to determine what has been learned, what use has been made of the results, what the gaps are, etc;

7. That expenditures under the strategy should be clearly identified and recorded as separate from those of other programs;

8. That an overall plan be developed for the Tobacco Control Initiative (TCI) under the coordination of the TCI coordinator.

9. That a mechanism be established to coordinate activities with provinces and NGOs;

10. That a larger portion of future funding for Aboriginal programs be allocated to communities;

11. That data collections be conducted at regular intervals to monitor trends in key indicators such as smoking prevalence, tobacco consumption, anti-smoking policies, etc.;

12. That research should be undertaken to find out which interventions work best. It is generally recognized that a mix of interventions is appropriate, but little research appears to have come to conclusions on the relative effectiveness of various types of interventions.

EVALUATION OF

TOBACCO DEMAND REDUCTION STRATEGY

DRAFT REPORT

Strategic Planning and Evaluation
Strategic Planning & Review Directorate

February 1998

Contents

Credits i

Introduction 1

Chapter 1: The Tobacco Demand Reduction Strategy 3

Chapter 2: Evaluation Questions 9

Chapter 3: Legislation and Enforcement 15

Chapter 4: Public Education and Awareness 27

Chapter 5:Community Action Initiative Program 35

Chapter 6: Access to Information 45

Chapter 7: Contributions to Aboriginal People 49

Chapter 8: Message Promotion 53

Chapter 9: Research 63

Chapter 10: Social Context Issues 71

Chapter 11: Strategy-wide Issues 91

Appendix A: Summary of Legislation 111

Appendix B: Public Education and Awareness Projects Reviewed 115

Appendix C: Community Action Initiative Projects Reviewed 119

Appendix D: Research Projects 123

Appendix E: Price Elasticity and Demand for Cigarettes 129

Credits

The following managers provided comments to the evaluation and participated actively in the evaluation process:

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- Murray Kaiserman, A/Director, Office of Tobacco Control, Health Protection Branch
- Dawn Hachey, Manager, Office of Tobacco Reduction Program, Health Programs and Promotions Branch
- William Maga, Health Policy Division, Policy and Consultation Branch
- Earl Nowgesic, Health Programs and Support Division, Medical Services Branch
- Jane Hazel, Partnership and Marketing/Tobacco, Health Program and Promotions Branch

From the Strategic Planning and Evaluation Division (SPED), Strategic Planning and Review Directorate (SPRD), the following staff were involved in the evaluation:

- Robert Pelletier of the Strategic Planning and Evaluation Division was the Program Evaluation Project Manager and senior author of the evaluation study.
- Silvia Olivares-Guevara of the Strategic Planning and Evaluation Division was the senior program evaluation analyst for the evaluation study.
- Paul Youldon (Fitness Canada, on secondment to SPED) was a member of the evaluation team.
- Geoffrey Cole, Co-op student from Carleton University, was a member of the evaluation team.

Several evaluation reports were prepared on different activities of the Tobacco Demand Reduction Strategy by the following consulting firms:

- Goss Gilroy Inc.
- Ekos
- Madhu Joshi & Associates
- Jamieson, Beals, Lalonde, Inc.

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Evaluation Chronology

• Planning Completed	November 1996
• Terms of Reference Approved	December 1996
• Field Work and Consultations Completed	September 1997
• Draft Report prepared and circulated for comments	December 1997
• Draft Report Submitted to Audit and Evaluation Committee	
• Final Report Approved by Chair of Audit and Evaluation Committee	

INTRODUCTION

This report presents the results of an evaluation of the Tobacco Demand Reduction Strategy (TDRS) which was part of the National Action Plan on Smuggling (NAPS) launched by the Federal Government on February 8, 1994. The Strategy was to last until March 31, 1997 and its objective, through programs, public education and enforcement, was to minimize the anticipated negative impact of tax cuts on tobacco consumption, particularly in those groups most likely to initiate or increase tobacco use as a result of lower prices. The responsibility for implementing the Strategy was assigned to Health Canada.

The evaluation was conducted according to the Terms of Reference approved in November 1996 by all the Assistant Deputy Ministers in Health Canada who had a role in the implementation of the TDRS. The evaluation was coordinated by the Strategic Planning and Evaluation Division, Strategic Planning Directorate, Policy and Consultation Branch, Health Canada.

Under the TDRS, Health Canada developed a mix of programs and activities which include:

1. Legislation and enforcement
2. Public Education and Awareness Programs
3. Community Action Initiative Programs
4. Access to Information
5. Contributions to Aboriginal People
6. Research
7. Message Promotion
8. International Initiatives/Coordination and Evaluation

All Branches within Health Canada played a role in the implementation of the TDRS by developing and implementing anti smoking programs specific to their respective areas of responsibility. The responsibility for coordinating and evaluating Health Canada's TDRS activities rested with the Policy and Consultation Branch. A total of $104 million was spent on the TDRS over the three-year period.

It was not expected that the evaluation would be able to assess the TDRS in terms of its impact on smoking prevalence or consumption because, firstly, not enough time has elapsed since the implementation of the Strategy for outcomes to be observed and, secondly, the TDRS was implemented in an environment where many other anti-smoking activities were taking place so that isolating its impact from these other activities would be very difficult. Consequently, the overall approach taken was to examine each component to see what activities have been undertaken, what outputs have been produced, whether the intended target groups have been reached and, to the extent possible, what the immediate impacts have been on these target groups.

Three independent private consulting firms were contracted by the Strategic Planning Directorate to conduct this evaluation. Jamieson, Beals, Lalonde Inc. conducted the evaluation of the Public Education and Awareness, the Community Action Initiative and the Access to Information components. Ekos Research Associates conducted interviews with departmental, NGOs and provincial representatives, a review of the research component and held three focus groups with Aboriginal people. Madhu Joshi & Associates conducted a review of the data already collected through various surveys that provided information on broader indicators such as smoking prevalence and consumption, peoples awareness of ETS and the dangers of tobacco smoking, changes in municipal bylaws and anti-smoking policies in school and other settings. The impact of the legislation enforcement component implemented by the Health Protection Branch was assessed by Goss Gilroy Inc. under contract with HPB.

Organization of the Report

The report is divided in 11 chapters. The first two chapters present a description of the TDRS, the evaluation questions and the methodology. The seven subsequent chapters provide the results of the evaluations of individual components of the TDRS. Chapter 10 presents the overall context the tobacco control environment in Canada in terms of broad indicators such as prevalence, peoples attitudes and knowledge, anti-smoking policies in various setting, etc. As part of this evaluation, a significant number of Health Canada officials at various levels, provincial and Non Governmental Organizations representatives and experts were interviewed and/or consulted. Their views and opinions on various aspects of the TDRS are provided in the last chapter.

It should be noted that the research for this evaluation was mostly done by independent consultants. Unless otherwise indicated, the conclusions or opinions expressed are those of the consultants or of the people interviewed or consulted. Their conclusions and opinions are not necessarily shared by Health Canada.

CHAPTER 1: THE TOBACCO DEMAND REDUCTION STRATEGY

Introduction

On February 8, 1994, the Federal Government formally launched a National Action Plan on Smuggling (NAPS). The Tobacco Demand Reduction Strategy (TDRS) was introduced, as part of NAPS, to counteract the increase in tobacco consumption that was expected to follow the reduction in tobacco taxes. An amount of $183 million was allocated over three years to the Strategy[1]. Health Canada was assigned the responsibility to implement the TDRS. The overall approach and the funding of the TDRS were approved by Treasury Board in August 1994.

The objectives of the TDRS[2]

The ultimate aim of the TDRS was, through programs, public education and enforcement, to minimize the anticipated negative impact of tax cuts on tobacco consumption, particularly in those groups most likely to initiate or increase tobacco use as a result of lower prices. In so doing, the TDRS sought to create a climate that would marginalize tobacco products and support all product users in their attempts to quit.

The success of the TDRS was seen as depending in large part "upon the extent to which all levels of government, communities, health groups, employers, women's groups, schools, and individuals join in the effort to change societal norms in a way that further marginalizes tobacco use."

The TDRS was to be consistent with the goals of the already existing National Strategy to Reduce Tobacco Use (NSTRTU) which were: a) to help nonsmokers stay smoke-free; b) to encourage and help those who want to quit smoking to do so; and c) to protect the health and rights of nonsmokers.

In particular, the objectives of the TDRS included:

- minimizing the risk of an increase in tobacco consumption in those groups most likely to initiate or increase tobacco consumption because of lower prices,
- increasing the priority of tobacco control as a public health measure in Canada.

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[1] This amount was reduced to $104 million in February 1995, which essentially reduced many of the TDRS activities.

[2] The objectives of the TDRS as presented here are from the paper entitled Tobacco Demand Reduction Strategy: An Overview, prepared by the Policy and Consultation Branch in October 1994.

- increase public knowledge of the dangers associated with tobacco product use;
- enhance public awareness of the health risks associated with environmental tobacco smoke;
- further denormalize the use and marketing of tobacco products.

While providing for new initiatives, the TDRS was to maintain the key directions defined by the National Strategy including legislation, access to information, availability of services and programs, message promotion, community action, research and knowledge development.

The TDRS Target Groups

Four broad target groups were identified under the TDRS: youth; women; priority groups; and the public.

1. Youth

Most components (media campaign, enforcement, women, Community Action Initiative, etc.) of the TDRS have youth among their target groups. On a historical basis, smoking prevalence in the 15-19 age group declined from 46% in 1981 to 20% in 1991 but had increased since then to 26% in 1994. This group was considered to be the most sensitive to the price of tobacco. It was believed that a reduction in price would encourage youth to either take up smoking or smoke more. Furthermore, it is within this age group that most long term smokers start to smoke.

2. Women

Smoking among women had been declining less rapidly than among men since a larger percentage of teenage girls smoked than boys. The TDRS was to particularly target women in what was considered high-risk groups, including teenage girls, low-income women, unemployed women, Aboriginal women, single mothers and women with low literacy skills.[3] In addition a pre- and post-natal initiative was to be specifically aimed at women of child bearing age.

3. Priority Groups

These are groups within which there continue to be high levels of smoking, that are hard to reach and that appear to have benefited least from past efforts to reduce tobacco consumption. These groups are immigrant youth, people with low income, itinerants, people with low literacy skills and aboriginal people.

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[3] These particular groups have been identified in Synthesis of the Literature on Priority Groups for Smoking Protection, Prevention and Cessation Programs, Diane Kinnon and Liz Hart, October 1994. The paper was prepared for the Tobacco Reduction Programs Unit, Health Promotion Directorate.

4. **The Public**

In addition to the specific target groups mentioned above, the TDRS also aimed at informing and influencing, directly or indirectly, public attitude and behaviour concerning tobacco smoking.

The TDRS Means of Intervention

The programs or means of intervention developed under the TDRS can be grouped under eight categories:

1. **Legislation and Enforcement**

The Tobacco Sales to Young Persons Act (TSYPA), which came into force on February 8, 1994 prohibits the sale of tobacco products to people under 18, tobacco vending machines in public areas and imposes heavy financial penalties to anyone selling tobacco product to a person under 18. Health Canada hired full time inspectors to ensure the enforcement of the Act across Canada. In addition, to avoid duplication of effort, cooperative enforcement arrangements were made with six provinces.

2. **Access to Information**

The TDRS provided additional funding to the National Clearinghouse on Tobacco and health (administered by the Canadian Council on Smoking and Health) to further facilitate dissemination and exchange of information on all aspects of tobacco.

3. **Public Education and Awareness Programs**

These are specific prevention, protection and cessation programs aimed at the specific TDRS target groups including priority groups. These programs were intended to be developed and implemented in cooperation or partnership with other organizations (schools, naos, businesses, unions, First Nations, etc.) or with professional groups (physicians, teachers, nurses, etc.).

4. **Community Action Initiative Programs**

Funding has been made available under the TDRS to provide time limited funding (contributions) for local, regional and national projects that develop and strengthen the ability of communities and community-based organizations to identify and address tobacco issues.

5. Message Promotion

National mass media campaigns delivered anti-smoking messages through television, radio, outdoor and indoor advertising and print media. The primary target groups were: youth aged 11-17; their parents/caregivers; opinion leaders; and the public. The overall objectives of the campaign were:

a) to move tobacco from a personal choice to a public health issue, thereby increasing motivation for quitting/abstaining, and increasing support for tougher public measures against tobacco use;

b) to increase pro health choices over smoking through greater respect for nonsmokers health, recognition of the toxic nature of tobacco products;

d) to build/strengthen powerful negative images of tobacco that linger in the minds of the largest audience, and surface when personal choice opportunities arise; and

e) to increase awareness for the role that retail outlets play in access of tobacco by minors.

Additional specific objectives were to continue to support Health Canada's Q4L/V100F program, to inform parents and opinion leaders about the health effects of ETS, the importance of measures to protect the health of non-smokers.[4]

6. Research

Part of the TDRS resources were also devoted to research. The purpose of the research program was to obtain a better understanding of the health effects of tobacco smoking, tobacco constituents and the characteristics and motivation of the smoking population. It was expected that the new information will help designing effective programs and legislation.

7. International Initiatives

Under the TDRS, Canada undertook collaborative activities with other countries and supported the World Health Organization in promoting the implementation and maintenance of tobacco control policies in other countries. The TDRS will also supported specific research projects of international interest.

8. Evaluation and Coordination

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[4] Social Marketing Campaign to Support the Tobacco Demand Reduction Strategy. A paper prepared for Health Canada by McKim Communications Limited, September 29, 1994.

All Branches within Health Canada had a role to play in the implementation of the TDRS by developing and implementing anti-smoking programs specific to their respective areas of responsibility. The responsibility for coordinating and evaluating Health Canada's TDRS activities was assigned to the Policy and Consultation Branch. An evaluation framework was developed in 1994-95 that laid out the approach and the overall plan for the evaluation.

Resources

The proportions of the $ 104 million spent under the TDRS were as follows:

Legislation Enforcement	10 %
Public Education and Awareness	20 %
Community Action Initiative	31 %
Access to Information	3 %
Contribution to Aboriginal People	5 %
Research	7 %
Message Promotion	20 %
International Initiative/Coordination and Evaluation	5 %

TDRS Expected Results

Broadly speaking, the above TDRS interventions were expected to:

1. increase awareness of the negative health effects of smoking among the population in general and among the specific TDRS target groups;

2. decrease exposure of nonsmokers to second hand smoke in public places, the workplace and the home;

3. discourage children and adolescents from taking up smoking and encourage those who smoke to stop;

4. help those who want to stop smoking by supporting the development and the provision of cessation programs;

5. enlist the active support of health professionals, employers, employees, educators, non-government organizations, etc. in the promotion of a smoke free environment;

6. facilitate access to, and use of, information on tobacco;

7. make tobacco smoking less acceptable socially;

8. make tobacco products more difficult to obtain by youth;

9. undertake research that will provide more information on all aspects of the tobacco issue.

11. increase the priority of tobacco control as a public health issue.

10. denormalize the use and marketing of tobacco products.

These, however, were means to the achievement of the underlying objective which is actual reduction in prevalence of smoking and in tobacco consumption which, in the long term, remain the ultimate test for assessing the effects of anti-tobacco interventions. It is realized that the TDRS is not an isolated effort and that success (or lack of success) in each of the above areas cannot be entirely attributable to the Strategy. Provinces already have, and are still developing, anti-tobacco legislation, regulations and programs that also have an impact on smoking behaviour. Many Non-Governmental Organizations were also actively involved in anti-tobacco activities. Given this context, it was not expected that this evaluation would be able to isolate the specific contribution of the TDRS to changes in the each of the above areas. In addition, many anti-smoking activities do not have short-term effects. Consequently, the impact of some of these initiatives will not be felt for some years.

CHAPTER 2: THE EVALUATION QUESTIONS

Following are the evaluation questions addressed in the evaluation; they are divided into the following three areas:

- the broad social context within which the TDRS is implemented;
- general TDRS issues that cross each of the seven intervention areas; and
- issues with respect to individual interventions.

Social Context Issues

1. Has the situation (social context) that existed at the introduction of the TDRS changed and in what way?

2. In light of trends observed in smoking prevalence and amount smoked since the introduction of the TDRS, is there any evidence to support the basic assumption behind the TDRS: that a decrease in price leads to an increase in consumption?

3. To what extent did changes in price contribute to a change in smoking prevalence and consumption, particularly among young Canadians?

4. Can the difference in smoking prevalence and consumption among provinces be attributed to price differences?

5. What other factors were influencing the overall tobacco use environment during the course of the TDRS (ie. promotion)?

Strategy-Wide Issues

6. Has the implementation of the various components of the TDRS been consistent with the original objectives of the TDRS?

7. How and to what extent has the TDRS been coordinated with provincial and NGOs anti-tobacco activities?

8. Has the TDRS built effectively upon services, programs, and other initiatives that existed prior to February, 1994?

9. Have the various interventions been consistent with, and supportive of, other TDRS interventions objectives? Have the interventions complemented each other to increase the potential impact?

10. What has been the share of the total effort devoted to prevention, protection and cessation? Was this consistent with the original intent?

11. Are the TDRS objectives and interventions consistent with the other priorities and policies of the Department and of the federal government (e.g., Agriculture Canada, Heritage Canada)?

12. What other programs, policies and legislation of the federal government may have had an impact, positive or negative, on tobacco control?

Intervention Specific Issues

The next set of issues deals with individual federal interventions under the TDRS. Basically, these questions address the extent to which each initiative has been successful in achieving its objectives and in reaching the intended target group. The evaluation questions are grouped under the following categories of interventions: Legislative/Enforcement, Access to Information, Public Education and Awareness Programs, Community Action Initiative Programs, Message Promotion, Research, and International Initiatives

Legislation/Enforcement

13. Did legislative and regulatory actions under the TDRS contribute to making tobacco products more difficult to obtain?

    a. Has enforcement of regulations under the Tobacco Products Control Act (TPCA) increased? Has the Tobacco Sales to Young Persons Act (TSYPA) been enforced?

14. Has the TSYPA been effective in reducing sales to minors?

    a. Have education materials been developed and disseminated for retailers and restaurateurs?

    b. Has there been an increase in retailers' understanding of their obligations under the TSYPA? Have there been improvements in compliance?

Access to Information

15. To what extent have people in the tobacco control community, the corporate sector, schools, and the provincial / territorial governments used the services and products of the National Clearinghouse on Tobacco and Health? To what extent have the services of the Clearinghouse reached and served its intended audience?

16. How have the services and products offered by the Clearinghouse evolved since 1994?

17. What is the future viability of the Clearinghouse once the TDRS sunsets?

18. To what extent is the Clearinghouse used by Health Canada and others to disseminate the research studies funded through the TDRS?

Public Education and Awareness Programs

This category includes research and development activities for specific TDRS population groups including women, youth, priority populations (e.g., Aboriginals, ethnic populations, Francophones). Activities are intended to increase the knowledge and resources to help specific population groups to become and remain tobacco free. For the most part the programs, resources and new knowledge were intended to reach people directly or indirectly through health professionals, parents, teachers, peers, employers, caregivers and information networks.

19. What research has been conducted to increase knowledge of such issues as: factors influencing smoking uptake and cessation among adolescent girls and boys; smoking behaviours of priority populations, workplace nonsmoking policies, smoking behaviours of pregnant and postnatal women, impact of smoking on health, influence of the media on smoking behaviours, effective prevention and cessation strategies?
    a. Is there evidence that the research results were used for designing programs, resources and message promotions?

20. What resource materials and/or programs and/or training resources have been developed for what priority populations?
    a. How have they discouraged youth from taking up smoking and helped those who want to stop?

21. How have programs/resources been implemented and used in the workplace, schools, community health programs, recreational programs? What has been the impact to date?

22. How have activities enlisted the support of parents, teachers, health professionals, coaches, employers, peers and community leaders in efforts to promote smoke-free environments and help Canadians to become and remain tobacco-free?

23. How have activities facilitated the access to, and use of, information on tobacco?

24. Were the programs/resources developed on the basis of identified needs and have these needs been addressed?

25. Have new partners/infrastructures been created/strengthened to continue work in the area of tobacco control?

26. How have activities strengthened the capacity of communities/NGOs to undertake

effective tobacco control activities?

27. Are there groups other than those identified in the TDRS that should have been targeted for programs and services because of their actual or potential high use of tobacco?

Message Promotion

28. What has been the impact of media campaigns on target groups in terms of increased awareness, knowledge of the dangers of tobacco smoking and of ETS? What evidence is there of changing attitudes and behaviour?

29. What were the target groups addressed by the media campaigns and were these groups reached?

30. To what extent have the media campaigns increased awareness of the dangers of tobacco smoking and of ETS among target groups?

31. Has message promotion had a discernible impact on media and other opinion leaders (eg. editorial writers, columnists, talk show hosts)?

32. Have the observed changes in knowledge/awareness actually affected tobacco consumption?

33. Has message promotion been carried out in coordination with the other initiatives of the TDRS and

Community Action Initiative Programs

In this category are programs and projects funded through contributions to various community groups.

34. What have been the effects of community action projects funded through the TDRS?

35. What programs and services have been introduced through community action initiatives? What groups were targeted? What has been the share of the total devoted to promotion, protection and cessation?

36. To what extent have funded projects achieved their expected results? What have been their impact on their target groups?

37. Have the projects funded been consistent with the objectives and target groups of the TDRS?

Research

38. Did the research funded through the TDRS provide useful information to plan and evaluate other components of the TDRS?

39. What research has been funded and why? What has been the share of research devoted to prevention, protection and cessation?

40. Was the information needed for designing programs, services, and message promotion of high quality, and was it provided in a timely fashion?

41. Is there evidence that the research results were used for designing programs, services, and message promotion?

42. Was the research initiative successful in collecting good quality data from all the priority groups?

International Initiatives

43. What initiatives have been undertaken at the international level and what were the results?

Conclusions and Future Direction

44. Is there evidence of "collateral positive outcome" (i.e., protection measures may encourage cessation)?

45. What lessons have been learned from the TDRS experience and how can the findings assist in the prospective Population Health Strategy?

46. In light of the results achieved through the TDRS, what methods of intervention are the most effective? Are there better ways to achieve the same objectives? What type(s) of interventions should be continued in an environment of limited resources?

SCOPE AND FOCUS OF THE EVALUATION

Ideally, the TDRS should have been evaluated in terms of its overall objective that is, in terms of its impact on smoking behaviours among the target groups. However, this was not possible for several reasons. First, the TDRS was not an isolated effort and was implemented in an environment where many other anti-smoking activities were taking place, making it impossible to isolate its specific contribution in terms of changes in smoking prevalence and tobacco consumption. Second, at the time the evaluation started, the TDRS had been in existence for only two and a half years, which is generally considered to be too short a time to significantly affect people's smoking behaviour and for program outcomes to be observed. Third, there is no way of knowing what would have happened in the absence of the Strategy. For these reasons, the evaluation essentially focussed on what was undertaken, the outputs produced, and the impacts on users of the outputs (eg. tobacco users, nonsmokers, employers, retailers).

The approach taken was to review each individual component to see what was accomplished, whether they were consistent with the overall TDRS objectives and whether there was evidence that intermediate objectives were being achieved. These reviews were conducted under contract by independent private consulting firms. Jamieson, Beals, Lalonde Inc. conducted the evaluation of the Public Education and Awareness, of the Community Action Initiative and of the Access to Information components. Ekos Research Associates conducted review of the research component, conducted focus groups with Aboriginal people who received contributions from the Medical Services Branch and conducted interviews with Health Canada officials, Non Governmental Organizations and other external stakeholders representatives and provincial governments officials involved in tobacco control. Madhu Joshi & Associates was contracted to review data already collected through various surveys that provided information on broader indicators such as smoking prevalence and consumption, people awareness of ETS and the dangers of tobacco smoking, changes in municipal bylaws and anti-smoking policies in school and other settings. The purpose was to obtain an appreciation of the overall tobacco situation in Canada. The impact of the enforcement program implemented by the Health Protection Branch to enforce the tobacco legislation was assessed by Goss Gilroy Inc. under contract with HPB.

As a final step in the process, the findings of all these individual studies were summarized and submitted to a panel of experts in fields related to tobacco control to obtain their views and suggestions. The overall approach taken for this evaluation is consistent with the evaluation framework that was developed for the TDRS in 1994.

CHAPTER 3: LEGISLATION/ENFORCEMENT

1. Introduction

One of the objectives of the government anti-smoking interventions is to reduce smoking prevalence and tobacco consumption among youth. The *Tobacco Sales to Young Persons Act (TSYPA)*, implemented on February 8, 1994, forbids tobacco sales to young people under the age of 18 years and restricts the location of cigarette vending machines to bars and taverns. The Act's intent is to protect the health of young people by restricting their access to tobacco products.

The responsibility for enforcing the TSYPA was assigned to the Office of Tobacco Control (OTC) of the Health Protection Branch, Health Canada. In order to fulfil its obligations, the OTC undertook:

1) to inform tobacco retailers in Canada of the TSYPA and its regulations and of their obligations under the Act, and

2) to develop and implement a national enforcement program to enforce the legislation.

In January 1997, an evaluation of the Enforcement Program for Federal Tobacco Legislation was undertaken by the OTC with financial participation of the Strategic Planning and Evaluation Division of Health Canada. The study was conducted under contract by Goss Gilroy Inc., a private consulting firm in Ottawa. The evaluation addressed, among others, the following questions:

> Have education materials been developed and disseminated for retailers and restaurateurs?
> Has there been an increase in retailers' understanding of their obligations under the TSYPA?
> Has the Tobacco Sales to Young Persons Act (TSYPA) been enforced?
> Have there been improvements in compliance?
> Has the *TSYPA* been effective in reducing sales to minors?

This chapter presents a summary of the key findings of Goss Gilroy's report as they pertain to the above evaluation questions. Unless otherwise indicated, all data presented in this chapter were extracted from this report.

2. Program Accomplishments

2.1 Accomplishments in Retailer Awareness

As the TSYPA was a new piece of legislation, information activities during 1994-95 and 1995-96 focused on informing retailers and the public about the requirements of the Act. Around the time the TSYPA came into effect, three information initiatives were undertaken by the OTC. These included:

- Information Kit: In March of 1994, an information package was mailed out to more than 150,000 retail establishments in order to inform all those who might be affected by the TSYPA. The information package was either mailed directly to the retailer or indirectly through appropriate industrial or retailer's associations.

- Newspaper Ads: In February and March of 1994, announcements were placed in major dailies throughout the country, informing retailers and the general public of the main thrust of the TSYPA as well as providing a toll-free 1-800 information number for further information.

- 1-800 Number: A toll-free line was established to answer questions from the general public and retailers on the TSYPA. In addition, information was provided on provincial legislation as required and the information kit was mailed out to those who requested it.

In addition to the above, most provinces developed and distributed their own information packages. Retailing associations also conducted their own awareness raising activities on tobacco legislation enforcement. For example:

- The National Association of Tobacco and Confectionary Distributors provided training materials to retailers for distribution to their staff. The material included information with respect to the proper I.D. and the penalties for not complying with the law.

- A major new initiative to stop illegal tobacco sales to minors was launched in the fall of 1996 by the *Canadian Coalition for Responsible Tobacco Retailing*. Called *Operation I.D.*, the initiative was targeting all retailers to implement a "zero tolerance" policy and to require proper identification before selling tobacco products wherever age is in question. Retailers were being sent information and training kits that provided a wide range of point-of purchase communication materials, such as posters, cash register signs and counter displays.

2.2 Increase in Retailers Awareness

To measure the effectiveness of the awareness-raising activities Health Canada commissioned Optima Consultants to undertake a three-year tracking survey of tobacco retailers between 1995 and 1997 called the *Tobacco Retailers Survey on Tobacco Sales to Minors Legislation.* This survey was designed to determine changes in levels of awareness and understanding of federal and provincial legislation of tobacco sales to minors.

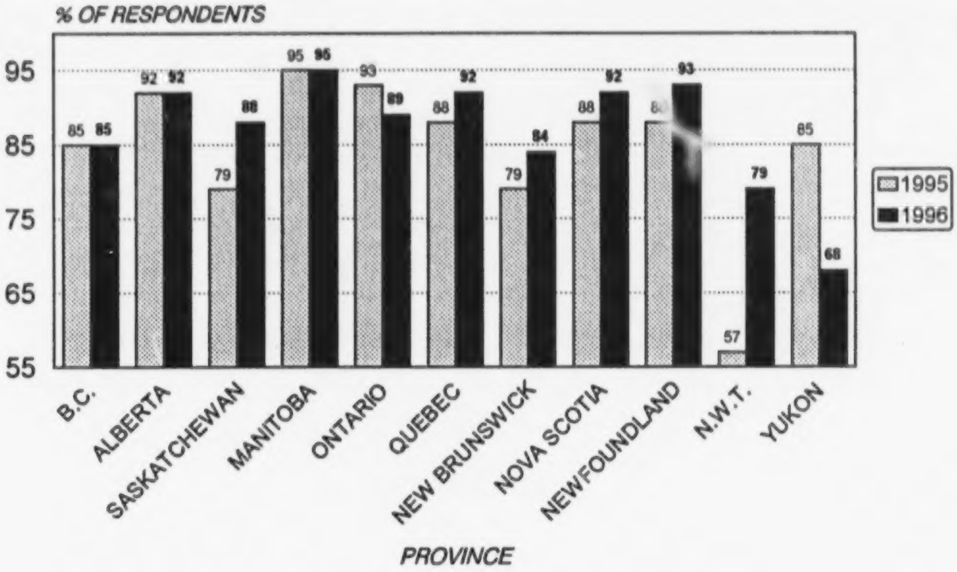
A mailing survey was used based on a regional stratification of retailers and stratification by retail outlet. The retailer groupings established were: variety store; supermarket; general store; gas station; pharmacy; magazine and tobacco; bar/restaurant; hotel; bowling; and, billiards. In 1995 the total sample was 4,461 retailers and in 1996 the total was 4,550. The survey measured the extent to which retailers were aware of the requirements of the legislation concerning legal age limits, proof of age, legal age signage, the number of signs, compliance with signage laws and monetary fines.

Results of the two surveys showed an increase in retailer awareness of the legislation in general between 1995 and 1996, which seems to indicate that information campaigns were effective in reaching retailers.

Figure 1 below illustrates the awareness of correct legal age limits across Canada. In the six provinces (British Columbia, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland) where the legal age for minors to buy tobacco is 19 years, awareness is approximately 90%. The Atlantic provinces show a slight increase in awareness of this legislation (except PEI where it was only introduced in 1995), while Ontario shows a 4% decrease in awareness from 93% in 1995 to 89% in 1996.

Figure 1

AWARENESS OF CORRECT LEGAL AGE LIMITS



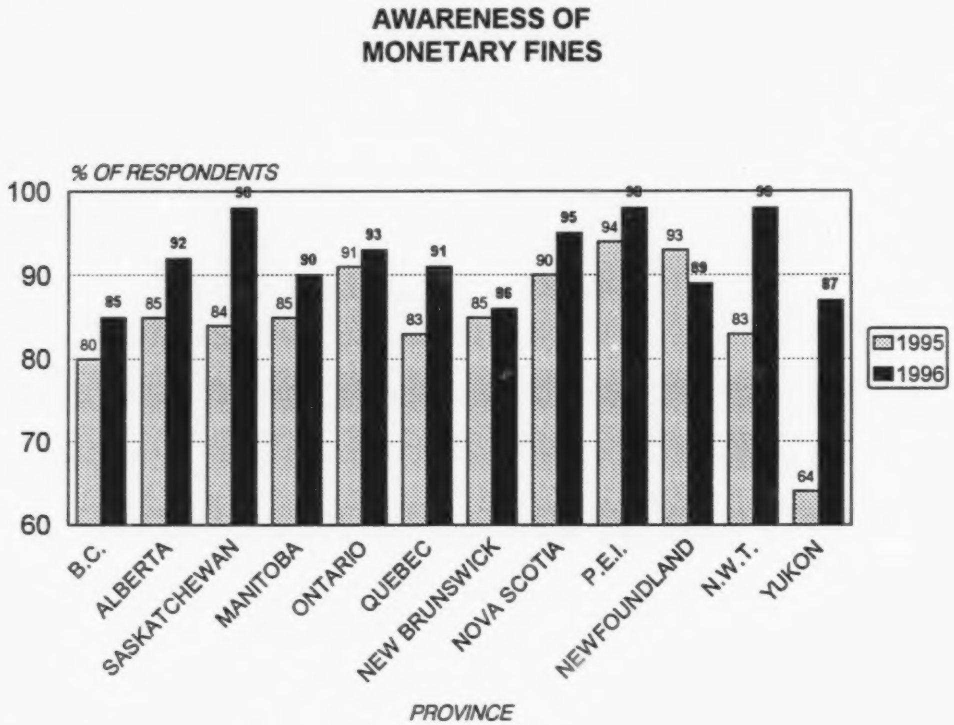
Proof of Age

Awareness of the requirement to ask for proof of age when in doubt is at 96% on average for the country.

Monetary Fines

Figure 2 below illustrates that retailer awareness across the country of monetary fines for violating legislation is 91%, and has increased across all regions with the exception of Newfoundland which experienced a decrease of 4%.

Figure 2



Legal Age Signage

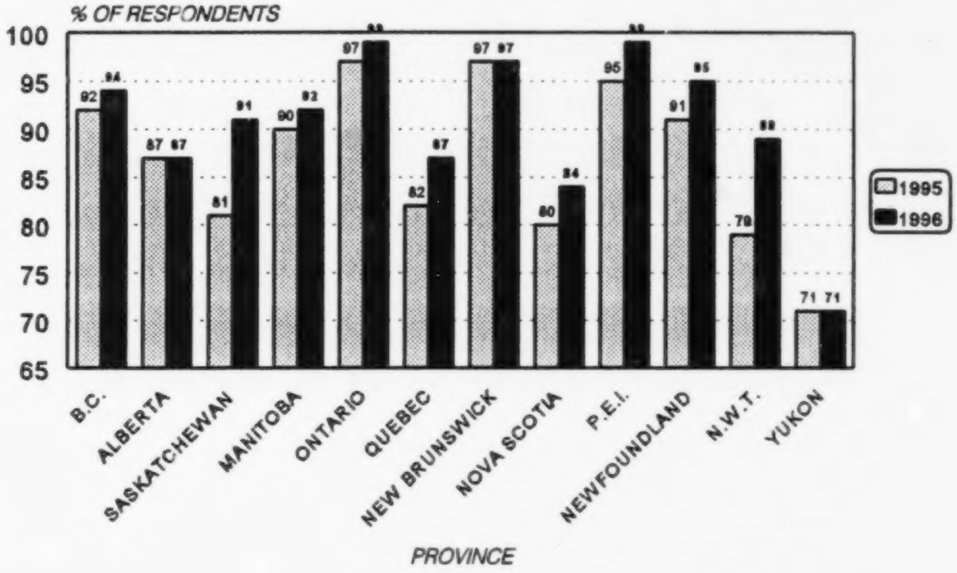
The average level of awareness of the requirement to post legal age limit signs in tobacco retail outlets is 92% (see Figure 3 below). Awareness levels in all of the provinces and territories either increased or remained the same in 1996.

Number of Signs

At the time of the survey, it was still unclear to many tobacco retailers across the country as to the number of signs they are required to post. However, awareness of the requirement to post at least one sign has increased to 60% in 1996 from 39% in 1995.

Figure 3

AWARENESS OF LEGAL AGE SIGNAGE REQUIREMENT



Enforcement Visits

In 1996 the percentage of tobacco retailers visited by an enforcement officer in the six months before the survey increased by 10 percentage points, from 32% in 1995 to 42% in 1996. Tobacco retailers in 1995 and 1996 are far more likely to have been visited by an enforcement officer than non-tobacco retailers (32% to 7% and 42% to 5% respectively) indicating that the enforcement programs are targeting the right stores.

Enforcement visits have increased in British Columbia (39% in 1995 to 62% in 1996), Alberta (37% to 52%), New Brunswick (12% to 34%), Ontario (42% to 45%) and P.E.I. (21% to 77%). A decrease of 14 percentage points was found in Manitoba (59% to 45%). These increases and decreases may be partly explained by changes in the number of "do not know" responses in each year.

3. Accomplishments in Retailer Compliance

3.1 Agreements with the Provinces

As noted above, cooperative enforcement agreements were signed with six provinces. Although, these agreements were customized for each province, the objectives and activities to carry out the objectives are essentially the same for all six. The purpose was to "to establish a mutually acceptable administrative and financial arrangement that minimizes duplication and overlap and maximizes cooperation and coordination in the enforcement of federal and provincial tobacco related legislation"

The actual amounts transferred to provinces under the federal-provincial contribution agreements are shown in Table 1. Under these agreements, funds are transferred to the provinces and provincial inspectors enforce both the provincial and federal legislation. The exception is Ontario where, at the province's request, a small number of federal inspectors are working closely with their provincial counterparts. In the provinces where there are no contribution agreements, Health Canada has hired federal inspectors. This includes the Central Region (Manitoba and Saskatchewan) Alberta, NWT, and Quebec.

Table 1: Summary of Federal-Provincial Contribution Agreements for Enforcement of Tobacco Legislation

Province	1994-95	1995-96	1996-97	Total
British Columbia	$160,000.00	$550,000.00	$200,000.00	$960,000.00
Ontario		$500,000.00	$600,000.00	$1,100,000.00
New Brunswick	$33,333.33	$100,000.00	$100,000.00	$233,333.33
Nova Scotia	$33,333.33	$100,000.00	$100,000.00	$233,333.33
Prince Edward Island	$16,667.00	$ 50,000.00	$ 50,000.00	$116,667.00
Newfoundland and Labrador	$33,333.33	$100,000.00	$100,000.00	$233,333.33

Source: Federal-Provincial Contribution Agreements

Each of the six Contribution Agreements clearly defines the activities to be carried out such as: surveillance; inspection; investigation of complaints or concerns; intelligence gathering; referral of non-compliant retailers and advertisers [5] to the federal government; and, special projects.

Enforcing compliance is through a gradual step-wise approach. First, regulatees are informed of their obligations, then compliance is monitored. If there are violations, these are documented and regulatees are informed and warned. Consistent violations can lead to prosecution. The severity of the measures taken depend on the seriousness of the offence.

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[5] Advertisers not included in Ontario contribution agreement.

3.2 Provincial Legislation Versus Federal Legislation

At the time of this study, seven provinces had enacted legislation restricting tobacco sales to young persons legislation: British Columbia, Manitoba[6], Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador. There appear to be two main reasons why the provinces felt the need to do so:

I) concern by some provinces (prior to the announcement of the federal TSYPA) that the lowering of tobacco taxes would lead to a rise in youth smoking rates; and,
ii) concerns that the federal legislation might be rescinded over time.

The provisions of each province's legislation are briefly summarized in Appendix A, based on information available at the time of this study.

The fines and length of suspension of licence to sell tobacco products differs among the various pieces of legislation. In addition, the focus of enforcement activity varies from inspection only (Newfoundland and Labrador and New Brunswick) to compliance checking only (Manitoba) to compliance checking/decoy purchase (British Columbia and Nova Scotia) to surveillance (Ontario). Table 3 below summarizes the enforcement activity for each of the provinces.

Although there are some aspects of provincial tobacco legislation which mirror and, in some cases, overlap those of the federal TSYPA, the Contribution Agreements facilitate a partnership by which enforcement of tobacco legislation is not duplicated. The exception is Manitoba where there is currently no Contribution Agreement in place.

Goss Gilroy reported that, in general, there has been no problem encountered in enforcing provincial sales to minors legislation and the TSYPA because, where provincial legislation is more stringent, enforcement of the provincial legislation has subsumed the federal legislation; i.e., when inspection staff enforce their respective provincial legislation, they are automatically enforcing the TSYPA. There are a number of ways in which provincial legislation is more stringent than the TSYPA. In particular, the legal age limit is higher under provincial legislation; i.e., with a minimum age requirement of 19 in six of the seven provinces, while under the federal TSYPA, the legal age is 18. Vending machines prohibited altogether in Ontario and Nova Scotia. Furthermore, licences to sell tobacco products cannot be suspended under federal law, while most provincial legislation provides for suspension. A detail comparison of the federal and provincial legislation is provided in Appendix A.

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[6] Manitoba is unique in that it is the only province enforcing its provincial legislation without a federal-provincial contribution agreement in place.

3.3 Enforcement Activities

Almost 90,000 enforcement activities were completed during FY 1995-96 and the first two quarters of 1996/97. The majority (60%) of these were inspections, followed by compliance checks (26%). As can be observed from Table 2, the Western Region appears to be further ahead in the implementation of compliance checks than the rest of Canada. In fact, according to people interviewed by CGI, the Atlantic Region has only begun using compliance checks as an enforcement tool while Ontario remains the only province which used surveillance and complaint investigation as the primary enforcement tools.

Table 2: Summary of Enforcement Activities Completed by Province

Prov/Region	# of Inspections	# of Surveillance	# of Investigations & Prosecutions	# of Liaison	# of Compliance Checks	Total Activities
Newfoundland	2845	0	6	22	94	2967
Prince Edward Island	2416	0	11	0	0*	2427
Nova Scotia	1599	0	568	23	539	2729
New Brunswick	3138	11	81	91	0	3321
Quebec	8858	5	543	155	5252	14813
Ontario (fed or prov)	16464	7699	849	854	950	26816
Central	1986	19	38	93	5427	7563
Western (Fed)	3497	8	180	398	4697	8780
Western (B.C.)	11276	0	598	189	5608	17671
TOTAL	52079	7742	2874	1825	22567	87087

Sources: HC National Reports and provincial reports for the Atlantic Provinces. NB. Compliance checks include rounds one to three.

* PEI just started doing compliance checks in the third quarter of 1996.

3.4 Level of compliance

From an evaluation point of view, the important question is whether these reported activities had an effect on actual level of compliance. Two surveys, commissioned by the Health Protection Branch were conducted by AC Nielsen in 1995 and 1996 to measure retailer compliance with the TSYPA. The 1995 survey was designed to establish baseline data on retailer compliance with the TSYPA; the 1996 survey examined trends in retailer compliance with the federal legislation. In both years, approximately 5000 retail outlets were selected for site visits in twenty-five communities across ten provinces. The Northwest Territories and the Yukon were not included.

The selected sites equally represented five classes of trade where tobacco products were sold. These included: grocery supermarkets, chain convenience stores, small independent "Mom and Pop" stores (including corner stores, non-chain convenience stores, and variety stores), gas convenience stores and service station kiosks, and drug stores. In 1996, 4950 retailers were visited in total.

For the purposes of these surveys, the definition of compliance that was used had two dimensions: i) refusal to sell tobacco to minors, in accordance with the TSYPA, and ii) the posting of the proper signs as required by the TSYPA. Compliance with corresponding provincial legislation was also measured where applicable. Compliance with the provincial legislation, in British Columbia, Ontario, Newfoundland, Nova Scotia, New Brunswick, and Prince Edward Island ensures compliance with the TSYPA, given that the federal legislation is less stringent than that of the provinces.

The research teams consisted of one underage minor, 15-17 years of age, and one adult observer who visited tobacco-selling establishments across twenty-five cities in each of the ten provinces. The role of the minors was to attempt to purchase a package of cigarettes while the adult supervised and collected data regarding the posting of mandatory signs under tobacco sale-to-minors legislation. The minor carried no identification and made no attempt to disguise his/her appearance.

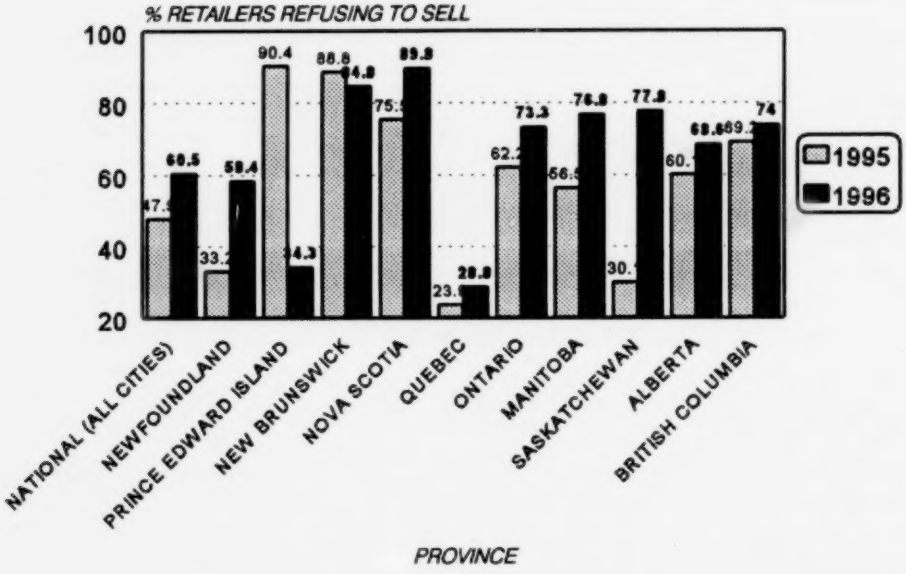
Results of the Nielson surveys showed that:

- compliance rates across the country increased from 47.9% in 1995 to 60.5% in 1996. Increased rates were found in all provinces with the exception of PEI and New Brunswick;
- a larger number of retailers were requesting ID and refusing to sell to minors. In fact the retailers asking for ID were more likely to refuse selling tobacco if the ID is not shown;
- fewer retailers were willing to sell tobacco products to minors of all ages;
- the age of the clerk was related to the propensity to sell cigarettes to minors; young clerks (about the same age as the minor) as well as the oldest age group of clerks, considered 'seniors', were most likely to sell to minors;
- the sex of the minor was less likely to affect compliance rates in 1996 than in 1995;
- there were significant variations in compliance rates across the different types of retail outlets that sell tobacco, although the national average indicates increased compliance across all types of retailers; and,

- while retail sign compliance has decreased nationally by 2%, it has only actually declined in two provinces (Ontario and Manitoba).

Figure 4

RETAILER COMPLIANCE BY REGION



Goss Gilroy examined local surveys on compliance conducted in Ontario and British Columbia and reports that, even though variations were found across these surveys, they all showed an increase from 1995 to 1996. The Ontario Tobacco Research Unit also reports an increased in retailer compliance between 1994 and 1995 following the introduction of the Ontario Control Act in November 1994[7].

4. Reduction in Sales to Minors

The Goss Gilroy study reports that despite increased compliance across the country, there does not yet appear to have been reduction in youth access to cigarettes, and therefore reduced rates of smoking among youth. The report quotes several studies conducted in 1995 and 1996 that show that youth could still easily purchase cigarettes from regular retailers or through friends, parents or others.

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[7] The Ontario Tobacco Research Unit. Monitoring the Ontario Tobacco Strategy, Progress Toward our Goals 1995/1996, Second Annual Report, October 1996

5. Conclusions

Evidence from the 1996 *Optima Tobacco Retailers Survey on Tobacco Sales to Minors Legislation* show that:

- the average level of awareness of the requirement to ask proof of age when in doubt was 96%;
- the average level of awareness of the requirement to post legal age limit signs in tobacco retail outlets was 92%; and,
- the retailer awareness across the country of monetary fines for violating legislation was 91%.

Evidence from the AC Nielsen surveys on retailer compliance show an increase in retailer compliance. Results of the 1995 and 1996 national surveys indicate that, in 1996, the national estimate of retailer compliance with respect to sales to minors was 60.5% - a 12.6% increase over the 1995 rate of 47.9%.

However, despite these positive results, Goss Gilroy reports that youth continue to be able to purchase cigarette rather easily.

5. Continuing Need for the Federal Enforcement Program

Goss Gilroy concluded that there is a continued need for the Federal Enforcement Program. The reasons for this include:

- assurance of some measure of commitment on the part of all provinces/territories to enforcement of tobacco legislation;
- a major cut in federal funding to enforcement could be seen as a lack of federal commitment to reduce tobacco consumption;
- as there is a liability issue related to enforcing an Act, there must be some means in place of enforcing the federal (or the provincial) tobacco legislation; and,
- where there are no Contribution Agreements and/or legislation in place, it appears doubtful whether many of the provinces will "pick up the slack."

Without federal funding:

- tobacco enforcement would no longer be a priority activity and may drop back to inspection or investigation of complaints only;
- dedicated tobacco enforcement staff hired to enforce the provincial legislation would be

let go; and,

- if compliance activities cease, there is some concern that the compliance rate will revert back to what it was before the program.

CHAPTER 4: PUBLIC EDUCATION AND AWARENESS PROGRAM

The goal of the Public Education and Awareness Component of the TDRS was to inform, educate and equip Canadians to take action to prevent and reduce tobacco use and/or exposure to Environmental Tobacco Smoke (ETS) among Canadians of all ages. There was a particular focus on reaching those populations of Canadians at increased risk for tobacco use, including youth, Francophones, women, heavily addicted and Aboriginal populations. The Program supported: :

1. research to expand and enhance knowledge of such factors as: smoking behaviours and practices of youth, women, Francophones and Aboriginals; gender differences in tobacco uptake and cessation; media influences on tobacco decisions; health effects to women who use tobacco and/or who are exposed to ETS; characteristics of successful tobacco prevention and cessation programming for youth and women; postpartum tobacco relapse; cost-benefits associated with school-based and work-based tobacco prevention and cessation programs; and physician's attitudes and behaviours toward smoking cessation;

2. the development and evaluation of age, gender, culturally and linguistically appropriate tobacco control programs and resources in order to increase the availability of effective programs and resources for use by youth, women, parents, teachers, community leaders, coaches/ recreational leaders, health professionals, employers etc.;

3. national studies to up-date information on the availability and impact of non-smoking programs and policies in schools, health care settings, workplaces, day care centres and public buildings;

4. the dissemination of tobacco-related information and best practices to assist Canadians, researchers, educators, health professionals, parents and community leaders with the design and implementation of appropriate tobacco control programs and policies;

5. activities to expand and enhance the number of individuals and communities involved in the provision of effective tobacco control activities at the national and regional levels;

6. The development and dissemination of effective and appropriate training/professional development tobacco control resources for health professionals, educators parents and community leaders working with youth, women, Francophone and Aboriginal populations

The evaluation of this component was conducted under contract by Jamieson, Beals, Lalonde & Associates Inc. from Ottawa. Unless otherwise indicated, the content of this chapter was extracted of the contractor's report.

In total, PEAP awarded 146 contracts under the TDRS. For this evaluation the contractor conducted an in-depth review of 30 projects selected from a pool of 40 preselected[8], completed projects, including 64 interviews with Health Canada consultants, contractors and other external stakeholders in relation to the projects. The PEAP sample included nine research projects, 19 resource products, one networking and one strategic planning project. Target populations included children, youth, women, Aboriginal peoples, and the disabled.

Project included the following kinds of activities which, it is believed, represented the activities undertaken by the program.

- *research*: needs assessments, literature reviews, surveys, Delphi panel, and focus groups
- resource product development: guides, kits, curricula, booklets, and one CD Rom product
- *networking*: a women-centre project to establish a network concerned with tobacco issues
- *strategic planning:* a workshop that focused on strategic planning related to Environmental Tobacco Smoke (ETS).

A complete list of projects reviewed is provided in Appendix B.

Table 1 shows the characteristics of the sample compare to the total project population. As can be seen, women and tobacco projects were over represented and priority population projects were under-represented in the sample.

Table 1 : PEAP Contracts 1994/95 - 96/97

Focus	**Total #**	**(%)**	**Sample #**	**(%)**
Women & Tobacco	54	37.0	14	46.6
School/Youth	15	10.3	2	6.7
Priority Populations	49	33.6	6	20.0
Pre & post-natal	10	6.8	3	10
ETS	18	12.3	5	16.7
Total	**146**	**100.0**	**30**	**10**

Many projects dealt with more than one target population of the TDRS. Overall, the populations addressed in the sample projects were as shown in Table 2.

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[8] A complete list of the 146 projects was not available at the time the review was undertaken. The 30 projects to be reviewed were randomly selected from 40 projects which were completed and for which the information was readily accessible. The Program considered that these projects were reasonably representative of PEAP projects.

Table 2 - Populations Addressed

Populations Addressed	# of Projects
Preschool children	2
Children 6-11	3
Youth	7
Young Adults	6
In-school	2
Out-of-school	1
Other Youth	1
Young Women	8
Pregnant Women	8
Other Women	13
Aboriginal Peoples	6
Disabled	1
Other (e.g. health professionals, employers)	14

None of the projects in the sample targeted specifically the unemployed, persons with low literacy, or ethno cultural groups. All projects were funded on a contract-basis and all but 4 projects were fully completed at the time of the review. They exhibited a wide range in funding amount, from $8,584 to $941,456, as demonstrated in Table 3.

Table 3 - Funding Levels

Category	Number of Projects	Percent
<10K	1	3
>10K<50K	4	13
>50K<75K	8	27
>75K<100K	6	20
<100K<200K	5	17
>200K	6	20

Nine (9) projects included an evaluation component, of which seven evaluation reports were on file at the time of the review. In addition, two resource products included "built-in" evaluation tools for program deliverers.

1. Relation to TDRS Objectives

All of the projects were consistent with the TDRS objectives, and included a mix of prevention (20), cessation(19) and protection (10) goals, as illustrated in Table 4.

Table 4 - Goals Orientation

Goal	Frequency	Percent
Prevention only	7	23.3
Cessation only	8	26.7
Protection only	2	6.7
Prevention and cessation	6	20.0
Prevention and protection	2	6.7
Prevention, cessation and protection	5	16.7
Total	**30**	**100**

2. Research Projects

The review of PEAP projects suggests that a wide spectrum of research projects on new or emerging topics, and priority populations were funded. A total of nine research projects were included in the sample. Many of the resource development projects also included an applied research component as part of the development process. The sample included the following:

- *School/Youth (2):* The Tobacco Marketing and Youth: Examination of Attitudes and Behaviours to the Tobacco Industry Advertising and Sponsorship, a study that empirically established a relationship between tobacco marketing and youth sponsorship - the results of this study were presented to a Parliamentary Standing Committee on Health; a Qualitative Study of Sex Differences in Acquisition of Smoking Among Pre and Early Adolescents documented gender differences in smoking uptake, challenging and clarifying myths and misconceptions.

- *Women and Tobacco (4):* PEAP built on a 1989 series of studies on women, tobacco and the media through the project "Mixed Messages: Women, Tobacco and the Media", which examined the portrayal of women and tobacco in the media and the potential impacts on women's smoking behaviour; Women and Cessation: Identification of the Cessation Programming Needs for Women to Quit Smoking examined the health risks associated with smoking and provided information on cessation strategies; a Needs Assessment of Disadvantaged, High-priority English-speaking Women increased knowledge of the smoking attitudes and behaviours of this group, and was used to inform new resources (e.g., Bridging the Visions and Community Kit); a Needs Assessment and Study of the Smoking Behaviours of Francophone Women reviewed existing literature on the smoking behaviours of Francophone women and studied their needs for resources.

- *ETS (1)*: PEAP funded a survey of parents and extended family members of children 12 years of age or younger (including discussion group to increase knowledge of parental knowledge, attitudes and practices regarding ETS, and to provide information to help policy and program development on ETS issues.

- *Physicians' Attitudes and Behaviours Towards Smoking Cessation: A Survey:* PEAP funded this survey to develop knowledge on the perceived influence that physicians have with patients regarding smoking cessation and ETS, and to example their practices in addressing these issues and to learn about their training requirements on these issues.

- *Economic Impact of ETS Policies/Legislation on the Hospitality Sector:* this study examined the economic impact of implementing smoking restrictions and programs primarily in the hospitality sector, and to obtain information to support businesses considering introducing smoke-free workplaces.

A wide variety of methodologies were used, including literature reviews, data base reviews, Delphi panel, and surveys. It was found that an especially extensive use of focus groups that appears to have yielded valuable, in-depth qualitative information on tobacco-related consumption and control issues.

3. PEAP Resource Products

PEAP funding resulted in an array of resource products, such as booklets, guides, training curricula, and kits. A total of 19 resource products were included in our sample, reflecting good coverage of issues and target populations[9], including:

> *Resources Products for School/Children and Youth* (5)*:* PEAP funded a wide array of resources targeted to children and youth, including: a Smoke-Free Kit for young children; the implementation and evaluation of a "Child-to-Child" approach to health promotion in Ottawa, northern Inuit, and Aboriginal sites; "Tobacco Tackle, a project aimed to encourage high school students to lead active and smoke-free lives; the development of a Tobacco Component to a Youth Peer Counselling Manual appropriate for the Aboriginal Community and Quit 4 Life, a youth tobacco cessation program. These resource products typically feature a strong participation focus, incorporating established, effective knowledge transfer strategies such as peer learning. As demonstrated through research, these features are markers of more successful interventions.
>
> *Women and Tobacco* (5): PEAP funded a substantial range of resources targeted to women, including: implementation and evaluation of a cessation program for low-income women, implementation of a cessation program for Aboriginal women in Manitoba,

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[9] There were no projects dealing specifically with the unemployed, low literacy, or ethno cultural groups in the sample.

Ontario, and Quebec; a resource booklet addressing issues of smoking and disabled women; a discussion paper and primer on adolescent women, tobacco, and physical activity; and a guide on gender sensitive tobacco programs. On the whole, these resource products appear to be well-grounded in research concerning women's attitudes, knowledge, and behaviours related to tobacco, and used a women-centred approach.

Pre and Post-Natal Tobacco Projects (2): The development, implementation an testing of a multi faceted intervention to reduce the incidence of smoking and smoking relapse during pregnancy and post-partum of women and their partners, as well as a booklet series for prenatal and post-partum providers, two examples of innovative, comprehensive strategies to address smoking issues concerning this high priority group.

Priority Populations: (2) PEAP funded a number of projects targeted to high priority populations via health professionals or other health providers, notably: the development of a distance learning curriculum resource for health professionals, volunteers and lay persons involved in tobacco programs and a smoking cessation training module for perinatal care providers.

ETS (2): PEAP funded a strategic planning workshop on ETS, to guide further work on ETS in public places. PEAP also funded the development of a health promotion insert on ETS, targeted to parents and caregivers of young children, that was distributed through Canadian Living/Coupe de Pouce.

Networking (1): While many of PEAP projects include networking elements, one project was specifically designed to build a network among women"s organizations and health organizations on tobacco related issues. This project appears to have generated mixed results in its first year; the network funding has not been sustained[10].

4. Conclusion

Changing public attitudes and knowledge about tobacco consumption and control is, at its very essence, an iterative process of long-term, incremental change involving:

- making improvements to the knowledge base via research
- transforming the knowledge into suitable public education and awareness strategies and resources,
- disseminating/transferring the knowledge to appropriate target populations, and
- impacting knowledge and awareness.

The achievements and impacts of PEAP need to be looked at in the larger context of tobacco consumption and control factors, especially the strength and scope of tobacco industry marketing that occurred during the period of the TDRS. Of equal significance, PEAP achievements and impacts must be viewed within the context of reasonable expectations for a public awareness and education intervention in a short time frame (three years), which from a management view, needs to include project planning, implementation, dissemination of results, and (where appropriate) evaluation. Finally, and very importantly, with the exception of those projects with built-in evaluations (such as Quit 4 Life) it was not possible to obtain much "hard" data on the extent to which PEAP projects have actually impacted target group knowledge and awareness.

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[10] This project was initially designed as a two-year project, however TDRS funding was cut after year one.

The contractor found that PEAP has made reasonable progress on, and knowledge contributions to a variety of tobacco consumption and control issues. Most notably, it is the opinion of the contractor that PEAP:

- *yielded valid contributions to knowledge on emerging and under-researched issues,* such as ETS, gender differences in tobacco consumption knowledge, attitudes, behaviours, the influence of tobacco industry marketing on youth tobacco consumption behaviours, the influence of the media on women and tobacco, and the economic impacts of smoking policies and programs

- *demonstrated a commitment to structured, quality program development processes,* such as research-based program development, focus group/pilot testing, process evaluation and program revision, and

- *generated improved knowledge on methods and strategies to reach priority populations and to change their knowledge, attitudes and behaviours concerning tobacco,* such as improved knowledge on peer-learning strategies for youth, culturally and target-group appropriate resources for aboriginal peoples, empowerment strategies related to women and tobacco cessation.

5. Strategic Impact

The contractor found that the projects in the sample consistently fit the overall TDRS objectives. However, the contractor did not find a formal strategic plan or specific funding criteria for PEAP. Workshops and discussions with stakeholders were held in the areas of women and tobacco, ETS, Francophones and tobacco, and school-based populations, to determine priorities for action. TDRS officials state that twice yearly, PEAP projects were presented to the National Steering Committee for the National Strategy to Reduce Tobacco Use for comment.

It is difficult to accurately measure the strategic contribution which specific projects have made with respect to TDRS's priority issues and/or populations. While no evidence of unjustified duplication or overlap was found, a formal strategic plan, linked to an information-sharing/monitoring mechanism at the outset of the TDRS could have been helpful in creating more synergy, and a sharper focus at the outset.

People interviewed consistently supported the kinds of approaches used in, and the continued relevance of PEAP style projects to improve public education and awareness of tobacco consumption and control. A constant concern amongst all interviewees was that the potential benefits of PEAP projects would not be realized after March 31, 1997, should TDRS funding cease. Further research, ongoing information-sharing, and continued program/activity delivery beyond this initial developmental stage is needed, because the issues that the TDRS has addressed are still highly relevant to Canadians, the needs of priority populations still exist, and other sources of funding have not been identified.

CHAPTER 5: COMMUNITY ACTION INITIATIVE PROGRAM

The goal of the Community Action Initiative Program (CAIP) was to support and strengthen the capacity of communities and nonprofit community organizations across Canada to address tobacco-related issues and reduce the harm caused by tobacco use to individuals, families and communities. This was to be accomplished by providing access to time-limited (maximum three years) contribution funding for projects of local, regional or national significance.

CAIP was designed to promote the following principles[11]:

- Prevention, Cessation and Protection activities designed to prevent and/or reduce harm related to tobacco use
- Target Group participation in all aspects of the project (i.e., project planning, implementation, evaluation) to ensure relevancy and appropriateness
- Strengthened partnerships and capacity of national, provincial/territorial, local organizations and communities to address tobacco-related issues, and
- Community action for health promotion[12].

The program was intended to support prevention, cessation and protection activities for at-risk and hard to reach populations, such as Aboriginal peoples, children, youth and women. Eligible project types included:

- community action/organizational development projects (including support for coalitions and networks)
- community-based demonstration projects
- education and training activities (e.g., conferences, symposia, training workshops, special projects and knowledge development activities), and

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[11] Health Canada (August, 1994) *Community Action Initiatives Program: Tobacco Demand Reduction Strategy.*

[12] "Community" was operationally defined as a "geographic region, a group of individuals sharing similar interests and concerns, or a group of people living in the same locality". We note that a national dimension was also added to the program to provide funding for organizations such as the National Smokers' Rights Association (NSRA) that undertakes national level work that is related to and assists community development, and the Pauktuutit Inuit Women's Association, a national level organization that undertook community awareness and education work in northern remote communities.

- resource product development and dissemination, targeted to designated TDRS populations (e.g., pamphlets, presentations, videos, handouts, computer resources, curricula and other teaching aids).

With the exception of national-level projects, the majority of the CAIP projects were administered through Health Canada's regional offices, in consultation with provincial/territorial officials and Non Governmental Organizations.

A total of 234 projects were funded under CAIP for a total amount of $21 million. The information provided in this chapter come from data collections conducted from March 1995 to February 1997 by the Merlin Group Inc.[13] on behalf of the Program and from an the evaluation study undertaken by Jamieson, Beals, Lalonde & Associates Inc.(JBL).[14] The two studies complement each other in that the Merlin Group surveys collected detail information about project characteristics and level of activities of community projects while the JBL study addressed broader issues such as consistency of projets with TDRS objectives, the impacts on target groups, etc. About 75% of funded projects completed the detail questionnaires sent out by The Merlin Group to be completed by projects. Jamieson, Beals, Lalonde and Associates In. conducted an in-depth review of 40, nationally representative projects randomly-selected from the pool of 234 projects funded via the Community Action Initiative Program, including interviews with Health Canada consultants, project sponsors, and other external stakeholders.

It may appear that the JBL study partly duplicate the Merlin Group data collection. It should be remember that the JBL study was meant to be an independent review of the program.

1. Projects Characteristics

Table 1 shows the distribution of projects according to the TDRS goals of prevention, cessation and protection. According to the Merlin Group, more than 50% of project resources were directed at prevention.

Table 1
Distribution of Projects by TDRS Goals Addressed

TDRS Goal	Percent of Projects
Prevention	29%
Cessation	23%
Protection	7%
Mixed	41%
Total	100%

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[13] Survey of CAIP projects conducted by The Merlin Group under contract with Health Canada.

[14] Evaluation of the Tobacco Demand reduction Strategy, Jamieson, Beals, Lalonde & Assoc. April 1997.

CAIP funding was intended to support projects that involve one or more of the following types of activities: a) community action/organizational development; b) demonstration; c) education and training; and d) resource development. Table 2 shows the distribution by type of activity.

Table 2
Distribution of Projects by Type of Project Activity

Project Activity	Percent of Projects
Training	18%
Resources Development	13%
Community/Org. Development	7%
Demonstration	6%
Mixed	56%
Total	100%

In terms of target groups addressed by the community projects, 56% were targeted at children, youth and young adults. Table 3 shows the distribution of Projects by TDRS target groups.

Table 3
Distribution of Projects by Target Groups

Target Groups	Percent of Projects[15]
Children, Youth and Young Adults	56%
Women	28%
Aboriginal People	13%
Members of Ethno-cultural groups	10%
Persons with disabilities	4%
Persons currently unemployed	16%
Persons with low level of literacy	21%

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[15]. Percentages do not sum to 100% since projects may have multiple target groups.

The Merlin Group estimated that CAIP projects generated almost 8,500 weeks of paid and volunteer employment; have resulted in new partnerships being formed with almost 3,000 local, regional or national partner organizations; have conducted over 2,500 training events attended by over 50,000 persons; have produced over 25,000 resource or communications products and distributed almost 150,000 copies; have involved 6,000 persons in cessation seminars, at least 1,200 of whom are known to have quit smoking; and have conducted almost 2,000 other events, exhibitions, presentations or displays with an estimated audience of over 150,000 persons.

2. The National Evaluation

The 40 CAIP projects by Jamieson Beals Lalonde & Associates included the following:

- National level projects (2)
- Community Action & Organizational Development (25)
- Resource Products (4)
- Demonstration Projects (1)
- Program Development and Delivery (4)
- Education & Awareness (2)
- Other (2)

The study essentially addressed the following issues: a) consistency of funded projects with the TDRS objectives and target groups; b) the impact of the projects in terms of impact and capacity-building at the community level; and c) the long term sustainability of the projects. Unless otherwise indicated, the information provided in the following sections of this chapter comes from the JBL's evaluation report.

The project types included in the sample are briefly described below:[16]

- *national level projects* included funding for the Non-Smokers' Rights Association work on Key Issues in Tobacco Control, and an Inuit Tobacco Use Community Awareness and Education Program.

- *community action and organizational development,* which comprised the vast majority of CAIP projects in the sample, involved community action and support, including activities to raise awareness, reduce smoking, or make communities smoke-free, and a particular focus on youth action in support of prevention and cessation. Many of these projects have produced, or will produce resource materials that could be used in other locations

- *resource products*: which specifically focussed on resource development including two projects utilizing new information technology (e.g., CD ROMS, the Internet)

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[16] The types of project activities described by JBL is consistent with other sources of information such as the Merlin Group and the CAIP database.

- *a demonstration project* pertaining to tobacco use among children and youth in ethno cultural communities
- *program development/and or delivery* projects, focused on cessation programming or cessation support
- *education and awareness projects,* focused specifically on education and awareness
- *other:* one project involved a research-oriented needs assessment of mothers who smoke; another involved the provision of evaluation support to CAIP projects.

3. Relation to TDRS Objectives

All projects in the CAIP sample were consistent with the overall objectives of the TDRS, and generally consistent with the initial CAIP funding criteria. In the sample, the contractor noted that two national level projects were funded which did not strictly fit the CAIP criteria, but in a strategic sense, encompassed community-action oriented actions. CAIP funding criteria state that "pure" research is not eligible for CAIP funding. However, one funded project in the sample was designed primarily as a research-oriented needs assessment, and therefore did not strictly meet the CAIP funding criteria (however was consistent with the goals of the TDRS). Health Canada officials note that all CAIP projects were vetted through an internal and external review process.

The CAIP sample projects included a mix of goals - prevention (29), cessation (25) and protection (20). The complete list of projects reviewed is provided in Appendix C.

At the time of the evaluation, only 15 of the 40 projects had a final report on file, owing primarily to the fact that many projects will not be completed until March 31, 1997. Not surprisingly, only 14 of the 40 projects had evaluation reports on file. The absence of final and evaluation reports has an impact on the extent of the findings and conclusions, and the contractor relied more heavily on opinion data than anticipated.

Interviewees suggested that generally, projects have met, or are meeting their short-term objectives. In some cases, it was felt that certain components of projects were more successful than others. For example, in some community-action projects, mobilization did not occur to the extent envisioned (it was felt that time frames were often too short to fully mobilize community members). On the other hand, other projects exceeded their objectives for participation, e.g., more facilitators than anticipated were trained to deliver a program.

4. CAIP Effects on Community Development and Capacity-Building

4.1 Community Development

As noted previously, many of the CAIP projects were just ending and there was only limited information on their impacts, as there were only 15 final reports, and 14 evaluation reports on file. This limited information, combined with opinion data from interviews, nonetheless yielded a consistent pattern. CAIP projects enjoyed consistently high levels of support from and participation by community members from the inception of the project (e.g., letters of support) through to participation in project activities. In terms of their impact on community development, at a minimum, it is believed that community-action oriented CAIP projects have raised levels of awareness concerning tobacco consumption and control in a variety of community settings - urban areas, rural areas, northern and remote areas, and amongst priority populations, e.g., women, Aboriginal people, youth. In many cases, there were more active partners and participants than anticipated. But most interviewees agree that there was also much more occurring, such as:

- *increased levels of community development skills:* many community action initiatives trained community members in skills germane to community development, such as facilitation.

- *spin off effects on other aspects of individuals' lives:* many of the community action and programming activities are believed to have had an impact on self-esteem (e.g., for low income women) and self-worth (e.g., for street kids); some activities directed towards students had an unanticipated positive effect on their parents as well.

- *improvements to community living:* several projects resulted in the development of policy-level initiatives, e.g., municipal tobacco control bylaws.

At this stage, it is difficult to measure the "success" or "effectiveness" of CAIP projects in terms of their long-term impact on community development. One of the reasons is that there are few evaluation reports available, and thus there is little concrete information on outcomes. In many of the interviews, interviewees referred to the concept of community development primarily in terms of immediate project gains, e.g., partnerships created, networking undertaken. It is unclear what long-term impact on community development will be achieved.

An additional concern relates to the limited time frame for CAIP projects and how this should scale expectations related to achievements in community-development. Many interviewees commented that community development takes time, and that for an issue such as tobacco, which may be seen as a remote priority amongst some populations (e.g., youth, Aboriginal communities), a significant amount of effort must be invested in education and awareness - before mobilization will occur. Given the short time frame for CAIP projects, this has been seen as a limiting factor in terms of community-development achievements.

In conclusion, while CAIP projects are credited with creating momentum, and helping to mobilize community-members in the short-term, there is little evidence to suggest what the impact in the long-term will be.

4.2 Capacity-Building

Capacity-building in very basic terms refers to the contribution that CAIP funded projects have made to a community's ability to respond - beyond the TDRS - to tobacco consumption and control issues. Our interviewees are of the opinion that CAIP projects have contributed, or will contribute to capacity-building primarily by:

- improving the knowledge and skill-base of community members, via participation in community development/mobilization processes related to the project, and by investing especially heavily in youth and women"s empowerment processes;

- expanding partnerships and networks amongst community members and diverse organizations - schools, youth serving organizations, health units, etc.; and

- making available resource products and tools that can be used in other projects and contexts.

The concept of partnership in the context of CAIP, and an appreciation (from a planning perspective) of what will be involved in building partnerships that could contribute to "capacity-building" is an area of concern. It is clear that the process of partnership-building is an intricate one, involving tasks such as:

- finding and cultivating the most appropriate local partners and project "champions"

- negotiating partnership roles and responsibilities (e.g., for project endorsement or support, resources, advice, active participation, etc., and

- ongoing communication and problem-solving during the course of the project.

One of the issues which has emerged, however, is whether sufficient thought has been accorded to allocating project resources (e.g., skills, expertise, time) in a way that would enable projects to pursue, invest in, and build up partnerships, particularly once their projects are in full-swing. It seems that it is sometimes difficult for project staff to accord priority to longer-term partnership issues (e.g., beyond the project time frame) because they are consumed with the here and now of project implementation.

4.3 Sustainability

In most cases, there is ongoing interest and good intentions to pursue further activity, yet not much evidence of any concrete plans to explore the relevancy, appropriateness, or possible form of ongoing sustainabilty of CAIP activities or networks. The importance and relevancy of sustain ability may vary by project type, e.g., a program requires a different type of resource infrastructure than does a network; many CAIP projects were also "one-time" activities with a very diffuse expectation for further action. Sustain ability should therefore not be construed as a standard requirement of CAIP projects.

The Merlin Group examined in greater details the dependence of projects on government funding and continuation of project activities after government funding has ended. According to the Merlin Group, projects resources came from the following sources:

- 81% from CAIP funding
- 10% from volunteer time (costed at an average of $10/hour or as reported by sponsoring organizations)
- 5% from other non-monetary resources (support-in-kind)
- 4% from other sources of funding.

In brief, the Merlin Group calculated that for each dollar provided through the CAIP program, 23 cents was provided in additional resources for these projects from volunteer time, support-in-kind and other funding resources.

The Merlin Group also reported that over 90% of sponsoring organizations expected to continue their activities after government funding has ceased but, for most of them, it would be at a reduced level. This is not inconsistent with the JBL's finding that there is good intentions on the part of the projects to continue their activities. Given the heavy dependence of most projects on government funding, it may prove difficult for them to continue, even at a reduced level.

5. Key Learnings and Transferability of CAIP Results

Much has been, and will be learned from CAIP projects, however it would appear that the mechanisms for sharing key learns are not, at least from a project sponsor perspective, clear at this point. Many interviews with project sponsors were characterized by a sense of uncertainty about what will happen with project resource products once the TDRS ends. Most project faintest were uncertain of the possible role of NCTE in relation to CAIP projects information dissemination.

5.1 Evaluation Expectations

Few evaluation results were available at the time of the evaluation and the major focus of the evaluations that were done or planned were process, not outcome oriented. It is recognized that in some cases, it is a question of balance and resources: outcome evaluations can be resource intensive and may not be cost-effective on small-scale projects. Considering that 45% of CAIP projects in the sample were under $50K, and 75% were under $100K, it is important that realistic expectations for evaluation be established. Another difficulty with evaluation in the CAIP was that the short time frame of the TDRS does not necessarily coincide with realistic program development, implementation, and evaluation time lines. Another difficulty is that evaluation support is sometimes lacking.

The contractor noted that one strategy to address the latter issue was implemented in a western region, where a CAIP "project" was designed to provide evaluation support for project sponsors. Although the results were not yet available, it seems that customized support of this nature is helpful.

5.2 Conclusion

Overall the CAIP projects were consistent with the objectives and direction of the TDRS and with stipulated CAIP funding criteria. They included a mix of prevention, cessation, and protection goals and generally addressed the appropriate target groups. To the extent that the sample of projects reviewed by JBL was representative, projects, in general, appear to have met, or were well on their way to meeting, their stated objectives.

JBL concluded that "although results-oriented information is limited at this stage, on a preliminary basis it would appear that CAIP has registered a positive impact at the community level. The longevity of this impact is, however, open question in the absence of concrete plans to address sustain ability and uncertainty concerning the dissemination of CAIP results."

There is no doubt that CAIP projects have generated a significant level of anti-tobacco activities in many communities but the issues the real effects on target groups and of sustainability or longer term impact of community projects still remains unanswered. This is an area where further research would be useful.

CHAPTER 6: ACCESS TO INFORMATION

Under the TDRS, additional funding was provided to the National Clearinghouse on Tobacco and Health (NCTE) to enhance the dissemination and exchange of tobacco-related information. The Clearinghouse was established in 1989 and is supported by the provincial, territorial and federal governments and by non-governmental health organizations. It is administered by the Canadian Council on Smoking and Health, a nonprofit national organization.

NCTH's mission is "to provide timely and reliable information and networking services relevant to tobacco use prevention and reduction programs, projects, resources and public policy initiatives." Key activities include: maintaining an extensive collection of materials; providing customized responses to requests for information; and undertaking selected projects to help clients working to achieve a tobacco-free society.

Under the TDRS, NCTH received $3.75 million over three years (1994-1997)specifically to:

- "expand its current activities to meet increased demands for its services
- upgrade its information storage and retrieval systems mandate , and
- develop and deliver more comprehensive client services."

The Evolution of Services and Products Offered by the NCTH since 1994

The NCTH has expanded its original inventory of core products and services under TDRS, added new products and services, and expanded the promotion of products and services. It has

- increased the quantity and quality of its inventory to some 20,000 documents
- continued to provide and streamline customized responses to requests for information, and to undertake projects to facilitate clients' work in tobacco reduction control
- produced a new monthly newsletter called *The Nicotine Times* and revised the Tobacco and Health Network Directory to meet Francophone needs
- upgraded its technical infrastructure by developing its own Web server, launched an award winning homepage on the World Wide Web, and developed its own internal data bases for reference purposes
- promoted its services via the NCTH homepage, participation in conferences and presentations nationally and internationally, publication in journals such as *Health Promotion*, and
- built partnerships, including entering into a reciprocal partnership with the Ontario Tobacco Research Unit.

1. Use of NCTH Services

In 1996, NCTH expanded its mandate to include providing direct service to the general public in order to meet Health Canada's criteria for clearinghouses in Canada, but the tobacco control community continues to be its primary client group. Nonprofit organizations remain the major client group in this area, followed by health units and government departments at all levels. According to a client satisfaction survey conducted in 1996, requests for assistance were most commonly from clients involved in Program or Resource Development (89% of respondents).

NCTH considers the launch of the NCTH homepage on the Web to be a key means of increasing public access to NCTH products and services. There were 13,537 visits to the NCTH web site recorded between September 1996 and 1997, an average of 113 per day. It is not possible, however, to identify the composition of web site visitors by client type. Thus, the extent to which the addition of the homepage to the NCTH's products and services actually broadened the scope of the Clearinghouse's client profile remains undetermined.

A comparison of NCTH "total requests" data reported in September 1994 and September 1996 indicates that, on average, NCTH responded to a higher number of requests each year between 1994 and 1996 than in the preceding five year period (not including web site users).

2. Dissemination of Research Studies

One of the issues of the evaluation was the extent to which Health Canada and other organizations use NCTH to disseminate information, taking into consideration that warehousing and distribution of TDRS resources/publications is not within NCTH's mandate.

NCTH has always made a practice of including relevant Health Canada resources in its collection, and promoting selected Health Canada resources in its newsletter or via its homepage. The NCTH entered into an agreement with Health Canada, wherein NCTH would assist potential and actual CAIP funding recipients in addressing their information needs, receive all product resources developed through CAIP-funded projects and maintain them for a six-month period, and maintain some of the above resources beyond that period (providing they are deemed to be a worthwhile addition to the permanent Clearinghouse collection).

According to both Health Canada and NCTH interviewees, only a limited number of CAIP products had been forwarded to NCTH at the time of the evaluation, primarily because the vast majority of CAIP projects had not yet been completed.

Health Canada personnel report that the majority of final products from PEAP projects funded under the Women and Tobacco and Pre- and Post-Natal Initiatives have routinely been forwarded to NCTH. The project file review identified only two projects in the sample which included a distribution plan that mentioned NCTH.

There were no data to indicate exact numbers of TDRS-funded products (or CAIP projects specifically) that had either been provided to or were currently available from NCTH.

3. Conclusion

It is clear that there is an ongoing need for Access to Information in the area of tobacco reduction and control in Canada. To date, the federal funding of NCTH represents an important investment in this area, but there are a variety of issues about the role of NCTH as a ongoing vehicle to facilitate information dissemination on tobacco.

Finally, the viability issue is contextualized by a changing environment at the national level. Significant factors include the level of further federal funding for tobacco control education and enforcement initiatives, and the ongoing development of the Health Information Highway.

CHAPTER 7: CONTRIBUTIONS TO ABORIGINAL PEOPLE

An amount of $4.9 million of TDRS funding was made available to First Nations and Inuit for anti-smoking activities. Of this amount, national Aboriginal organizations received $3.3 million for projects of national scope while $1.7 million were allocated for projects in Aboriginal communities. In total there were five national projects and 104 community or local projects.

As part of the TDRS evaluation, three focus groups were conducted, one each in Ottawa, Thunder Bay, and Saskatoon. The participants for these groups were all First Nation and Inuit persons involved with the TDRS. The Ottawa group was comprised of members of national organizations, while the remaining two groups were made up of community or tribal organization members. The list of potential attendees was provided by Health Canada, with Ekos arranging for the facilities and moderator. This chapter is a summary of Ekos' report on the results of the focus groups.

1. Background and Program Involvement

Participants in the focus groups that represented national Aboriginal organizations were well aware of the scope of the TDRS, how long it had been in existence, and when it would end. On the other hand, persons at the community or tribal organization level had no idea how long the TDRS had or would be in existence or even how it came about. This may suggest that a thorough dissemination of information regarding the TDRS should have occurred, and that periodic information packages should have been sent out to each group that received funding.

Participants reported that before the TDRS, anti-tobacco activities were mainly limited to front-line health workers engaging in sporadic activities as their time and resources allowed. Before, and probably after, the TDRS, there was no concerted effort to combat the use and effects of non-traditional tobacco smoke. They stated that they were all concerned with the health of their people and as such smoking was an important focus for their groups. However, they also stressed that other health and social issues were considered by many to be of greater importance, thus smoking was often not seen as a priority.

Allocation and Relevance of TDRS Support

The projects undertaken by the participants involved prevention (community action); training; policy; and research. At the national level, the emphasis was placed on education and training or research. While some of the national organizations did engage in community action, this was not as prevalent as at the community level. Community and tribal organization members were more likely than their national counterparts to use their funding in support of community action projects.

The majority of community-based projects were carried out by those participants at the community or tribal council level. These activities included such things as poster contests, anti-smoking materials and newsletters. The main focus of these activities was cessation, with a minor focus on prevention. The main target group at the community level was definitely youths.

There were also some community-based projects engaged in by national organizations. The purpose of these projects was build capacity at the community level by educating community-based persons in tobacco-related dangers or trained them as community-based researchers. According to participants, these community-based projects very successful and had received positive comments from community members. Trainers believed that the training provided gave people further opportunities and educating community members to be trainers or researchers built capacity in the community.

2. Training and Education Projects

The majority of projects undertaken in the area of training and education involved the development and production of Aboriginal specific resource materials for trainers and educators. Some of these materials were posters, booklets/pamphlets, videos and training materials.

Training materials for sessions specifically designed to educate communities on the non-traditional use of tobacco were also a priority. The participants stressed the importance and positive outcomes of these sessions which provided opportunity to educate youth on positive aspects of traditional use of tobacco while increasing the awareness of harms of non-traditional use of tobacco. First Nation facilitators were more successful in passing on the message than non-First Nations facilitators.

3. Research Projects

Several research projects were undertaken with the TDRS funding. Nationally, two Canada-wide surveys were conducted:

1) To examine smoking perceptions, attitudes, usage, etc. among 10 to 14 year old youths. The survey was administered to approximately 4,000 persons.

2) A wider national survey of various health determinants, including smoking. About 20,000 persons will be interviewed for this project.

One of the national organizations conducted a needs analysis in the area of smoking. Participants involved with the national research projects stated that generally, the results of their research will be used in policy, financial and program planning.

Two of the community or tribal council level organizations used parts of their funding to conduct research. One community's goal was to document non-traditional tobacco use in the community so as to compare it to other Native and non-Native groups. The other community surveyed its high school students to determine how many smoked and why. The major finding was that smoking is more prevalent among young girls than young boys, with girls beginning to experiment as early as nine years of age.

4. Program Management

There was considerable difference of opinion with regard to how well the program was managed by Health Canada. Those at the national and tribal council levels were very pleased with the management of the TDRS. They stated that they had no problems with liaising with MSB officials, nor did they indicate having any problems with the reporting requirements or the funding arrangements. One of the national organizations had some trouble receiving funding, and had to get a personal line of credit, for which they paid interest, until their funding came from Health Canada. All had established good working relationships with MSB staff, especially those staff who were First Nation or Inuit. They generally disliked the fact that MSB officials were constantly changing positions, stating that this made it hard to establish a working relationship.

At the community level, however, were not as much satisfied with the management of the TDRS by Health Canada. Participants stated that they were not consulted prior to receiving information on the TDRS because they are best situated to determine the health needs of their communities, and as such, should have been consulted before any type of strategy was put in place. All simply received faxes asking them, "to put together a proposal to get some money," yet most had never heard of the TDRS, why it was implemented, or why they were approached.

Participants were dissatisfied with the way in which they received funding from MSB. They stated that they had to spend their own money first, then get reimbursed. This process sometimes takes more than thirty days, thus communities are forced to pay interest charges on lines of credit or other bridge financing arrangements.

All participants at the community level found the reporting aspect onerous. They felt that the amount of paperwork required was too much given the levels of funding they received. They also stated that they felt no one read their reports, especially since they never receive any feedback from MSB. Community level participants also stated that they had no working relationship with MSB officials. Most had never met their project officers, doing everything by phone or fax. Much like the comment at the national level, participants were dissatisfied with the way in which MSB staff are moved around, making it impossible to develop any type of working relationship. There was a perception that MSB has too many administrators and levels so that by the time the money reached the community it had been reduced by administrative costs.

5. Strengths and Weaknesses

All the participants felt that the strength of the TDRS lay in its attempt to combat such a large issue. They all stated that while it may not have been funded to the levels or time frames they would have liked, at least it had raised awareness levels. Other strengths included the capacity building that went on, as well as the ability of participants to control their own projects under the TDRS. All participants felt that the TDRS was invaluable in "getting out the message" of the dangers of non-traditional tobacco use. According to them, a solid basis had been formed with regard to this issue, and as such any further initiatives would be much easier to facilitate.

The participants pointed out several weaknesses with the TDRS. They all felt that it should have been extended to a 5-10 year strategy. All felt that funding levels were inadequate to combat such a large issue. Participants felt that inflexible time lines were a weakness; March deadlines did not allow participants to be as effective as they could have been. They also pointed out the fact that they were unable to conduct any evaluations of their projects to measure impacts and effects. Participants were also unsure of where all the research findings were going; they felt that there was no follow-up to their activities.

6. Conclusions

In conclusion, the participants offered the following suggestions to improve the TDRS:

a) the program should get more money and be for a longer period, 5-10 years;

b) there should be more consultation among community members before programs and activities are designed to see what their priorities are;

c) there should be more lead time between the Request For Proposals (RFP) and the RFP deadline, more flexible time lines in terms of reports and more flexible financial arrangements, i.e., don't have to spend everything by the end of March;

d) posters, pamphlets, etc. need to be periodically updated, so ongoing funding is important;

e) the focus should be on children, and getting them to help their parents quit;

f) a resource sharing mechanism should be developed (e.g., forums, newsletters, annual conferences, etc.) to keep everyone informed;

There were suggestions that NNADAP workers and CHRs were are doing the work anyway, so funding could just be added to their budgets. Participants also stressed the need for a national clearinghouse on Native tobacco-related resources.

CHAPTER 8: MESSAGE PROMOTION

Close to 20% of the TDRS funding was used to deliver anti-smoking messages through television, radio and print media. The responsibility for this component rested with the Research, Program Policy and Planning Directorate (RPPPD), Marketing and Partnership Division, Health Programs and Promotion Branch.

To support the objectives of the TDRS, Health Canada launched the following four media campaigns:

a) two national media campaigns, the first one from January to March 1995 and the second one from January to March 1996;
b) the Aboriginal Campaign from September 1995 to March 1997: and
c) the Challeng to Youth campaign in March 1997

1. The National Campaigns

The 1995 and the 1996 national campaigns were targeted primarily at the general public with teens 11-17 years of age as the secondary target group.

The campaign objectives were:

a) to move the issue of tobacco use from a personal choice to a public health issue;
b) to increase pro-health choices over smoking through greater respect for nonsmokers' health and recognition of the toxic nature of tobacco products;
c) to build and strengthen negative images of tobacco; and
d) to increase awareness about the issue of tobacco access by minors.

Research

Health Canada's social marketing campaigns were based on careful analysis of the existing situation and trends and the conception, testing , and development of marketing tools. In July 1994, 13 television ad concepts were tested in 45-minutes interviews with 300 randomly chosen representatives from 10 target groups. The results of this testing showed that advertisements addressing health effects and secondhand smoke were more likely to change feelings about smoking than, for example, antiindustry ads.[17] In the end, the three leading advertisements in the secondhand smoke and health effects genres were selected for the campaigns.

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[17]. Social Advertising and Tobacco Demand Reduction in Canada, J. Mintz, N. Layne, R. Ladouceur, J. Hazel, M. Desrosiers.

In order to improve the success of the campaigns, a classification system of the population, developed from studies in California, was adopted for better targeting of the campaign and analusis of the results. This classification system divides the universe into six groups:

1. Regular smokers who intend to continue smoking
2. Regular smokers who intend to quit
3. Occasional smokers
4. Quitters
5. Susceptible non-smokers (those who are not totally against smoking but who do not currently smoke)
6. Emphatic non-smokers (those with strong anti-smoking opinions.

It is thought that each group requires different communication strategies and priorities and that the model applies equally to adults and teenagers. The Health Canada campaigns were aimed primarily at groups 1 to 5 as these are the most susceptible to be influence by anti-smokink messages..

Results

To measure the ability of the campaign to be recalled and communicate the intended message effectively, Health Canada hired Tandemar Research Corporation[18] to conduct two surveys - a Benchmark Monitoring Wave in December 1994, immediately preceding the campaign's major media launch in January 1995, and a Post Implementation Wave in February and March 1995.

Both waves used random selection to obtain a nationally representative sample of 1,300 youth and adult respondents. Teens and French Canadians were oversampled to ensure statistically acceptable sample sizes. Data was gathered through telephone interviews.

Results from the postimplementation wave indicate that 89% of Canadians age 11 and over recalled, with prompting, the new campaign's television ads. Without prompting, the rate of recall for Health Canada's new campaign ads was 38%, compared to 20% in the Benchmark wave measuring unprompted recall of Health Canada ads from previous campaigns. Among adults, the increase in recall between the two waves doubled, from 19% to 38%. Among youth, it increased from 29% to 37%. The overall conclusion was that, nationnally, Health Canada's anti-tobacco campaign achieved exceptional recall levels and that television advertising contributed disproportionaly more recal than print, relative to expenditures.

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[18] Tandemar Research Corporation (1995) Health Monitoring Study, Bench Mark and Post Waves. Health Canada

To measure the impact of the campaigns, RPPPD commissioned Sage Research Corporation[19] to conduct tracking studies in 1995 and in 1996. The main objectives of the tracking studies were the measurement of attitudes and beliefs about smoking, identification of smoking, and impact of the campaigns on the knowledge, attitudes and behaviour. The results from the two tracking studies provide information on the changes in smoking related beliefs, attitudes and behaviour from 1995 to 1996. The samples sizes of the tracking studies are not as large as those used in Statistics Canada surveys but reflect the "normal" proceeding for this industry.

Sage conducted telephone interviews with youth 11 years of age and older. A total of 2, 158 interviews were completed with adults 18 years of age or older, and 1002 with youth 11-17.

According to Sage 1995 survey, the media campaign was highly visible. Eighty-eight percent of adults in English Canada and 92% in Quebec remembered having seen the advertising.

Sage Research Corporation's Anti-Smoking Tracking studies (Sage 1 and Sage 2) provide information on changes in smoking related beliefs, attitudes and knowledge. Sage surveys include a large number of questions on beliefs, attitudes and knowledge of respondents. Answers to only a selected number of these questions are discussed here. These include reactions of the respondents to the media campaigns, their beliefs on the addictiveness and harmfulness of tobacco, and their attitudes towards banning sponsorship of sport events by tobacco manufacturers and toward a total ban on the manufacture and sale of tobacco products.

Although the monitoring study has shown the new ads are highly memorable, the results of a tracking study indicated the ads were having an effect on attitudes and behaviors of the population.

For example, the 1995 tracking study showed that 67% strongly agreed with the idea that the ads successfully brought out the issue of the harmfulness of tobacco; 61% strongly agreed that the ads clearly got across the need to respect the health of nonsmokers; 85% agreed strongly that the ads made them stop and think about the harmful effects of smoking cigarettes around children and infants; 47% felt the ads had changed their own smoking behavior, and 59% felt the ads had some influence on other people's smoking behavior; and 35% had a discussion about smoking because of the ads.

Table 1 presents data from the two cycles of the Sage surveys. Both surveys found that a very high percentage of adults and teens were aware of the adverse health effects of tobacco and of the effects of ETS on babies and children. Similarly, a very high percentage of respondents felt that the Health Canada ads clearly got the message out with respect to the health of smokers.

The table also shows that there have not been significant shifts in the beliefs and attitudes related to smoking from 1995 to 1996. These little or no shifts can also be seen in beliefs that smoking is not as dangerous or that smoking helps people relax.

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[19] Sage Research Corporation, Anti-Smoking Tracking Study, Volume 1 & 2.

Less than half of the respondents supported the ban on sponsorships of sporting and cultural events by the tobacco industry. Similarly, half the respondents supported banning the manufacture and sale of tobacco. However, the support for banning sponsorships has declined by 10% from 1995 to 1996 and for banning production and sale of tobacco by 4% over the same period.

Table 1
Percentage Distribution of Respondents According to Smoking Related Beliefs, Attitudes, knowledge and Behaviour

	Adults		Teens	
	Sage 2 (1996) (%)	Sage1 (1995) (%)	Sage 2 (1996) (%)	Sage1 (1995) (%)
Ads clearly bring out the issue of the harmfulness of tobacco	90	92	91	89
Ads clearly get across the message to respect the health of nonsmokers	90	89	91	86
ETS is harmful to babies and children	85	88	87	90
ETS can cause lung cancer	63	66	73	73
Pregnant women should not smoke	93	92	95	92
Sponsorship of sporting or cultural events by tobacco companies should be banned	38	48	49	50
By the year 2000, the production and sale of tobacco should be banned	33	37	47	51
Tobacco is not as addictive as other drugs such as heroin & Cocain	16	16	25	20
Too much fuss is made about dangers of smoking	16	15	18	17
Smoking helps people relax	22	21	10	8
Overall effects of the reduction of cigarette prices on smoking				
- People smoke more	33	38	59	62
- Smoke about the same	51	49	34	32
- Smoke less	10	8	5	4

The Sage 2 (1996) survey summarizes the opinions of smokers and nonsmokers about the sponsorship, banning tobacco manufacture and sales, and addictiveness of tobacco. Table 2 shows the opinions of adults and teens from the Sage 2 survey.

Table 2

Percentage of Respondents in Sage 2 (1996) Survey According to their Opinions on Sponsorship, Banning Manufacture and Sale of Tobacco and Addictiveness of Tobacco.

	Adults		Teens	
	Smokers (%)	Non-Smokers (%)	Smokers (%)	Non-Smokers (%)
Sponsorship of sporting or cultural events by tobacco companies should be banned	26	45	24	52
By the year 2000, the production and sale of tobacco should be banned	20	41	17	51
Tobacco is not as addictive as other drugs, e.g., heroin and Cocain	18	14	38	23

The support for banning the sponsorship of sporting and cultural events and for totally banning the manufacture and sale of tobacco products is much higher among the nonsmokers than smokers. The support is even higher among teen nonsmokers than adult nonsmokers. Approximately, the same percentage (between 15 and 20%) of adult smokers and nonsmokers believe that tobacco is not as addictive as other drugs such as cocain and heroin. However, about two in five teen smokers believe that tobacco is not as addictive. There is probably more opportunity for educating early teens about the relative addictiveness of tobacco.

Though, similar data were presented for each of the six smoking continuum groups separately, the results of the Sage 1 survey were not summarised by smokers and nonsmokers. Comparison between the findings of the two surveys was, therefore, not possible.

Table 3 shows the awareness of health risks among the smokers from their own smoking habit.

Table 3

Percentage Distribution of Smokers According to Their Awareness of the Effect of Smoking on Their Own Health

	Adults		Teens	
	Sage 2	Sage 1	Sage 2	Sage 1
	(1996) (%)	(1995) (%)	(1996) (%)	(1995) (%)
My smoking is harmful to my health	56	59	53	52

More than half of the adult and teen smokers were aware that their smoking was detrimental to their health.

About 35% of adults and 60% of teens believed that people were smoking more because of the reduction in prices. However, only about 5% of adult smokers stated that they were smoking more because of the reduction in tobacco prices. Twenty percent of teens in 1995 and 27% in 1996 responded that they were smoking more as a result of the reduction in prices.

Tandemar[20] surveys found that Health Canada media campaign of 1994 was successful in informing the public about the adverse health effects of smoking. This survey also found that while the campaign message was relevant, not many people thought that it provided information they did not already know.

With so many federal, provincial and private sector organizations providing information on the adverse effects of smoking, it is not surprising that many people already knew about the ill effects of smoking. In fact, data from Cycle 3 of Health Canada's Survey on Smoking in Canada showed that in 1994, over 80% of Canadians were already aware of the health risks associated with tobacco use and 90% percent believed that cigarette smoke could cause health problems in non-smokers.

2. Health Canada Challenge to Youth

On March 10, 1997, the Health Minister launched the Health Canada Challenge to Youth, a tobacco-related contest for young people. "I am asking young people to help us in the fight against youth smoking," said the minister.

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19. Health Monitoring Study: Benchmark & Post Waves, Tandemar Research Inc., June 1995

The contest invited 13-to 19-year-olds from across Canada to *Give us your best take on smoking / Donne ta meilleure réplique au tabac*. They were asked to submit a personal 20 second message in respect to how smoking affected them by calling a toll free number. The campaign was funded under the TDRS.

From March 7 to April 7, 1997, the toll free lines were opened to young Canadians from across the country. The campaign was actively promoted in partnership with the English and French television stations MuchMusic and Musique Plus, retail outlets of Future Shop, Cineplex Odeon Theatres and Empire Theatres across Canada.

Over over 19,000 calls received, of which 10,278 valid entries were considered. Entries were judged on the following criteria: Emotional (an honest, sincere message that will create a strong response from teens about smoking); Content (a relevant message for teens that is believable and accurate); and Originality (to be seen as in one's own words, or a unique message).

After a weekly screening of the calls was performed, the Minister's Youth Advisory Committee on Tobacco selected two winners from each region, the Atlantic provinces, Ontario, Quebec, the Prairie provinces, and British Columbia, the North West Territories and the Yukon. The ten winners were flown to Vancouver in April, where they appeared in a professionally produced Health Canada ad giving their winning message about smoking.

From June 6 to July 3, 1997, two 60 second ads, one in English and one in French, aired in

Cineplex Odeon and Empire Theatres across the country. Two English and one French - 30 second spots ran on MuchMusic and Musique Plus during the same time period.
In July 1997, Health Canada conducted a series of 200 interviews with young Canadians from 13-19 leaving Cineplex Odeon movie theatres, in Montreal, Toronto and Vancouver, at which Health Canada's commercials had been screened. These "intercept" interviews questioned respondents with regard to their recall of the Health Canada commercial, as well as the interviewees' qualitative response to the advertisements.

The total recall level was 81%, higher than prior in-theatre commercials by Coca-Cola (75% total recall) or Nike (74% total recall). Recall scores were in an equal range by gender (81% male: 80% female), age and educational level. As well, the sample indicated that recall scores for smokers in the target population (13-19) were the same as for non-smokers (total recall 79% for smokers and 81% for non-smokers).
Attendance at the theatres for July 1997 was estimated at 580,000 12 to 17 year olds and 622,000 18 to 24 year olds. Both groups combined add up to 29% of the total movie-going audience for the month of July. The ratings for MuchMusic and Musique Plus were equally impressive. The English Much Music station showed a weekly reach of 6.5 million viewers, of which 864,000 were in the 12-17 age group. The French Musique Plus reached a weekly audience of over 2 million viewers, with 253,000 falling in the 12-17 age group.

3. Health Canada Aboriginal Campaign

Aboriginal people were identified under the Tobacco Demand Reduction Strategy and Canada's Drug Strategy as being priority target groups for health messages on an entire spectrum of health-related issues. As such, the Aboriginal Wellness Campaign focusses not merely on tobacco, alcohol and other drugs, but also on HIV/AIDS, nutrition, substance abuse and mental health.

The Aboriginal Wellness Campaign was a two-year initiative which was launched in September 1995 and which ended in March 1997. The Campaign targeted the First Nations, Métis and Inuit peoples of Canada from toddler to elder, with special emphasis on youth aged 13 to 25.

The campaign's broad objective was to create an environment supportive of the promotion of healthy lifestyle choices by Aboriginal Canadians. The key elements of the campaign were:

1. National Poster Campaign

Three "Aboriginal Wellness Posters" were developed, one focusing on children's health, one on healthy pregnancy and a third on role models. Approximately 6,000 of each poster was sent to Friendship Centres, Health Centres, Community Centres, Aboriginal organizations and the media. The posters were available in English, French and Inukitut.

2. Wellness Lodge

The Wellness Lodge, an educational travelling exhibit housed in an 18' x 20' trapper's tent, was developed to promote healthy lifestyle choices using an interactive approach. It featured an Elder's Corner and health-related promotional materials including the "Path to Health" board game. The Wellness Lodge was developed by Aboriginal organizations from across the country. Working in partnership with local Aboriginal Health organizations, the Wellness Lodge travelled to over 20 communities over the course of the TDRS.

3. Children's Program

Aboriginal children from coast to coast were invited to share their visions of health with other communities. A colourful placemat was distributed in schools, Friendship Centres and the Wellness Lodge, encouraging children aged 5 to 12 to illustrate their visions of healthy lifestyles. These drawings were collected and used to create National Aboriginal Health Message Boards. Each display had a selection of drawings from every province and territory. The message boards are being displayed at Friendship Centres, Community Centres, Health Centres and schools for everyone to see.

4. Aboriginal Youth Video

In 1997, First Nations, Métis and Inuit youth united to form a National Volunteer Committee, along with Health Canada representatives. The Committee wrote, developed, and produced a video which focused on positive lifestyle choices being made by Aboriginal Youth.

There was no evaluation done on the impact of this Aboriginal campaign.

4. Conclusions

The social marketing campaigns undertaken under the TDRS were based on extensive research and on what appears to be the most up to date knowledge of smoking related behaviour and communication technology. The target groups and the themes of the campaigns were based on serious research and appear to have been properly identified. Independent surveys conducted provide evidence that the campaigns have reached their target audience and, from and advertising point of view, have been successful in terms of recalls and visibility.

CHAPTER 9: RESEARCH

This chapter focuses on the research funded under TDRS through the Health Protection Branch (HPB) and through the National Health Research and Development Program (NHRDP).[21] A total of 25 research projects were funded: 11 through HPB and 14 through the NHRDP. One of the purposes of the research activities was to provide information that would assist in the designing of programs and in the evaluation of other TDRS components.

The evaluation of research activities was conducted by Ekos Research Inc., a private consulting firm in Ottawa. The methodology consisted of a review of project files for the 25 projects and of telephone interviews with the project manager identified in the files as the person who held greatest administrative responsibility for the implementation of the project for the longest duration. The purpose of the review was to find out what research had been conducted, whether it was consistent with TDRS objectives, whether the results have been useful in the design or evaluation of TDRS programs and activities.

1. Research Projects

The full list of the research projects funded through HPB and NHRDP is provided in Appendix D.

At the time of the evaluation, nine of the 11 HPB projects and five of the 14 NHRDP projects had been completed. As shown in the table, for both HPB and NHRDP, the vast majority of research projects involved descriptive research such as surveys, secondary data analysis, literature reviews, focus groups, econometric analysis of existing data and interviews as opposed to the testing of cessation, prevention or protection. The amounts spent on research projects were $4.5 million for HPB and $2.8 million for NHRDP.

There is an important difference between research undertaken by HPB and the research funded by the National Health Research and Development Program. The HPB research projects were contracted out by the Branch for specific purposes. For example, the Retailer Survey was undertaken to measure the knowledge of retailers regarding the Tobacco Sales to Young Persons Act and the purpose of the Compliance Survey was to measure the effect of the enforcement program implemented to enforce the Act. Similarly, the Youth Smoking Survey was undertaken to better understand the attitudes of children and youth 10 to 19 towards smoking and their use of tobacco products.

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[21]. The research funded through the Public Education and Awareness Program was discussed in a previous chapter.

Other projects (Econometric Study, Nicotine Constituents of Tobacco Smoke, Packaging of Tobacco Products) were undertaken to help develop policies, legislation or regulations.

NHRDP projects were funded through the solicitation of proposals and selected on scientific merit. However, over two-thirds of NHRDP research project managers indicated that the designing of programs and the evaluating of other TDRS components was an important objective of their research. For *example, Cultural Factors in Tobacco Use Among Ethnic Groups* was intended to feed into specific programs dealing with ethnic groups. In other cases, while the designing of programs or the evaluation of TDRS components was not an objective, the research was developed with TDRS objectives in mind. For example, *Smoking, Smoking Cessation, Tobacco Control and Programming: A Qualitative and Quantitative Test* collected information on what smokers feel they need to quit smoking.

The complete list of research projects is provided in Appendix D. As can be seen from this table, the amount of funding varies quite drastically. In terms of the HPB projects, the two large surveys received the most funding (*Youth Smoking Survey*, *Survey on Smoking in Canada*) followed by the study on nicotine and the constituents of tobacco smoke. In terms of the NHRDP projects, the case study of risk factors for lung cancer received by far the most funding of all the projects. The amount of funding received by the remaining projects ranged from $22,000 to $265,000 with a number of the projects receiving funding around the $150,000 to $200,000 mark.

2. Types of Research Funded

The average amount of funding for each type of research by Branch is presented in Table 1. Aside from descriptive research, HPB projects were more likely to test prevention and protection interventions, while NHRDP projects were more likely to test cessation interventions.

3. Target Groups

The primary target groups of HPB projects, as shown in Table 2, were the general public (55 per cent), followed by youth (45 per cent), with none of the projects targeting women or resistant priority groups (e.g., Aboriginal people, immigrant youth). Only three projects indicated "other" as their target group, specifically retailers, civil servants preparing Bill C-71 and manufacturer's of tobacco products. While these projects may have focused on groups other than those identified as a priority for TDRS, in most cases the results of the research were thought to still affect them. For example, the evaluation of retailers' compliance to the sales to minors legislation will have an impact on youth if the results are used to better target or improve enforcement.

TABLE 2
Distribution of Funds by Research Type and Branch

	Branch					
	HPB			*NHRDP*		
	n	**Mean**	**Range**	**n**	**Mean**	**Range**
Descriptive research	10	$574,107	$0 - $1,735,000	11	$185,226	$22,159 - $848,383
Testing of prevention interventions	1	$546,000	$546,000	0	-	-
Testing of protection interventions	2	$102,500	$69,000 - $136,000	0	-	-
Testing of cessation interventions	0	-	-	4	$116,032	$23,900 - $199,991
OVERALL AVERAGE	$571,296			$176,980		

TABLE 4
Target Group by Branch

	Total	*Branch*	
		HPB	**NHRDP**
Youth	28% (n=7)	45% (n=5)	14% (n=2)
Women	4% (n=1)	-	7% (n=1)
Resistant Priority Groups	12% (n=3)	-	21% (n=3)
General Public	44% (n=11)	55% (n=6)	36% (n=5)
Other Target Group	40% (n=10)	27% (n=3)	50% (n=7)

Note: As research projects can have more than one target group, the percentages do not equal 100 per cent.

NHRDP projects, on the other hand, have "other" target groups as their primary focus (50 per cent), followed by the general public (36 per cent) and resistant priority groups (21 per cent). In terms of resistant priority groups, one project targeted immigrants, another include Aboriginal people in its study and a third focused on individuals with low incomes. As with the HPB projects, women received little attention as a target group. The "other" groups included: individuals with sclerosis, program designers, research community, health groups interest in tobacco control, male and female inmates, elderly, physicians, schizophrenics, working people, and the tobacco control community.

3. Dissemination

Project managers of both HPB and NHRDP projects were aware of a number of ways in which their research results had been disseminated to program managers, the tobacco community (e.g., Canadian Cancer Society), legislators and policy makers or the public. For HPB projects, the primary ways in which their research results were disseminated was through circulation within Health Canada, press releases, presentations, conferences and journal publications. For NHRDP projects, the primary way in which their results are disseminated are through presentations, conferences and journal publications. Other more specific methods of dissemination include:

a) the World Wide Web (e.g., *Regulatory Compliance Monitoring*);
b) working paper for the Ontario Tobacco Research Unit (e.g., *Cultural Factors in Tobacco Use Among Ethnic groups in Canada*);
c) academic channels (e.g., *Smoking and Back Pain: A Health Issue*);
d) reel-to-reel tapes (e.g., *Survey on Smoking in Canada*); and
e) Health Boards (e.g., *A Test of Cohen's Hypothesis*).

Most project managers (both HPB and NHRDP) felt that the dissemination process was relatively direct and rapid. According to one HPB manager, as most people making and influencing policy are in government, having research results circulated within government is the fastest way of having information disseminated to program designers and policy makers. On the other hand, dissemination through peer reviews and scientific journals are perceived to take time.

Experts however were rather critical of the research program undertaken under the TDRS. Ekos reports that research was seen by all experts as having had far less impact than it could or should have, because of first, lack of planning and coordination, and second, ineffective dissemination. This latter issue was seen as a very serious problem for TDRS by all experts. It was noted that in some cases (e.g., the study on relationship of price to consumption), reports were completely unavailable; in others, only highlight reports or no reports at all were ever published); and much of the commissioned research has not been submitted to scientific journals. It was also noted by two experts that funds were not available to carry through the results of sometimes years of research and millions of dollars into the design and implementation of more effective interventions, with the result that the research is still sitting on the shelf, getting out of date and unlikely to be applied or used by provincial agencies or NGO's.[22]

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[22] These comments appear to be rather severe given the fact that a) most of research funded under NHRDP was not completed yet; b) research undertaken under contract by Health Canada was to help design programs, legislation or policies, not necessarily aimed at publications; and c) in several cases, the research results were provided through news releases (e.g., SOSIC)

The National Clearinghouse was credited by two experts with having been very useful in disseminating findings.

4. Research Impacts

The research review conducted by Ekos reports the following specific outcomes/results of the research projects that were completed:

The HPB research projects:

a) identified age and gender of teens that are more prone to having cigarettes illegally sold to them (*Regulatory Compliance Monitoring*)
b) showed the extent to which government can influence total cigarette demand by controlling only price (*Econometric Study — Taxation, Smuggling and the Demand for Cigarettes in Canada*)
c) showed the importance of monitoring tobacco products on a continuous basis for toxic chemicals (*Nicotine and Constituents of Tobacco and Tobacco Smoke*)
d) published articles (e.g., *Taxation, Smuggling and Demand for Cigarettes in Canada: Evidence from Time Series Data*; *Econometric Study — Taxation, Smuggling and the Demand for Cigarettes in Canada*)
e) proved mortality rate among women for heart disease is on the rise and is directly related to tobacco (*Estimate for Tobacco-Related Health Impacts Using Canadian Data*)

The NHRDP research projects:

a) provided ammunition for legislation — particularly at the municipal level (e.g., results influenced Toronto By-law regarding smoking in restaurants and bars) (*Smoking, Smoking Cessation, Tobacco Control and Programming: A Qualitative and Quantitative Analysis*)
b) provided an organization with objective data from which to make policy and program decisions (*Evaluation of a Community-Based Smoking Initiative*)
c) published articles (e.g., *The Effect of Tobacco Tax Cuts on Cigarette Smoking in Canada*; *An Economic Analysis of Poor Smokers in Canada*)
d) provided information regarding the best time to reach immigrant populations (*Cultural Factors in Tobacco Use Among Ethnic Groups*)

Overall, it was the perception of those interviewed by Ekos that the results and information provided by the research was comprehensive both in terms of the overall research as well as in terms of their target groups. While gaps were noted in some of the research, this was not seen as a weakness in the research undertaken. Rather, it was felt that through the research the gaps were highlighted, as well as new avenues for research identified. Examples of areas where more research is needed included ETS and immigrant youth.

In the key informant interviews, federal respondents noted that the research undertaken through TDRS has gone beyond the norm and looked at the behaviours of smokers, determinants and prevention. Benchmark studies were undertaken, and advertising was based on more research than ever before, resulting in a better campaign.

Almost all HPB project managers felt that their research results would have at least some influence on project or legislation (federal and municipal) design, although some felt it was too early to know for certain. Some project managers were even of the opinion that their research results had already greatly influenced project and legislation design. Other examples include the influence projects have had on Bill C-71 (i.e., *Survey on Smoking in Canada, Tobacco Blueprint Papers*) and the potential influence on program design based on research findings which indicate the geographic areas where compliance to the Tobacco Sales to Young Persons Act (TSYPA) is not high (*Regulatory Compliance Monitoring*).

As with the HPB projects, NHRDP managers are also of the perception that their research findings will have at least some influence on project or legislation design, although a few managers indicated that it was still too early to know for certain. For example, the results of one study which indicated that people want more restrictions on smoking in public areas were used to support legislation in Toronto regarding smoking in restaurants and bars (*Smoking, Smoking Cessation, Tobacco Control and Programming: A Qualitative and Quantitative Test*). Results of research projects have also had, or have the potential to have, an effect on cessation programs. For example, one manager indicated that the results from his project caused a cessation program to be cancelled (*Evaluation of a Community-Based Smoking Initiative*). It was the opinion of a Health Canada representative that the results from another evaluation would enable the development of cessation programs which meet the needs of schizophrenics (*Smoking Cessation Group for Schizophrenia*). Finally, in terms of prevention programs, the results of another study provided information as to when is the best time to reach immigrant populations regarding tobacco consumption (i.e., when first entering Canada) (*Cultural Factors in Tobacco Use Among Ethnic Groups*).

According to these experts, health benefits for Canadians of TDRS research are simply not ascertainable at this time. Several experts stated that much of the research has the potential to produce health benefits, but only if there is a coherent plan for linking science to practice, including a rigorous assessment of information needed for policy and program development, framing of research studies to address these, and mechanisms to ensure that worthwhile interventions are adopted, implemented and monitored.

5. Future Research

Experts provided some suggestions for future research. For example, one stressed the importance of regulating the manufacture and content of all tobacco products, with a research effort to provide less dangerous products. Other research gaps that were mentioned were: research to improve dissemination of programs; on behaviour change; on ETS effects and behaviours; on alternative products for smokers; on interventions with legislators; on the role of other substance use in cessation; and on use of non-commercial sources of tobacco (obtained through family and friends). Evaluation emphasis should be placed on impact and outcome, rather than process, according to one expert. Another expert cited a number of question left unanswered in terms of how to integrate the different dimensions of TDRS at the community level, how to create a sustainable infrastructure that will have the power to match that of the tobacco industry.

In addition, it was noted by almost all experts that the timing of the evaluation precludes a satisfactory answer to this question, as research benefits in terms of improved programming will not be visible for some time to come.

CHAPTER 10: SOCIAL CONTEXT ISSUES

The main objective of the Tobacco Demand Reduction Strategy was to counteract the possible effects of the reduction in tobacco prices (following reduction in taxes on tobacco) on the smoking behaviour of Canadians. It was expected that the number of smokers and the amount of cigarettes smoked would increase due to the reduction in tobacco taxes. Therefore, TDRS was designed to discourage non-smokers from taking up smoking; encourage smokers to stop smoking or reduce the amount smoked; reduce the exposure of Canadians to ETS; increase the awareness about the ill-effects of smoking; and influence the beliefs, attitudes and knowledge of Canadians, particularly, in target groups. In short, the aim of the TDRS was to influence and change the smoking behaviour of Canadians.

The previous chapters examined the various activities or programs undertaken by Health Canada to address these objectives. As it has been mentioned earlier in this report, it was not expected to be able to establish cause-effect relationship between the TDRS and changes that may have occurred nationally. However, it is legitimate to ask whether changes have occurred in the national "tobacco control environment" and whether these changes in the right direction. This chapter focuses on this broad question. Madhu Joshi & Associates was hired by the Strategic Planning and Review Directorate to:

1. determine, from data collected through a number of surveys and results of media tracking studies, whether there is sufficient evidence that there has been changes (increases or decreases) in the following indicators as a result of the introduction of the TDRS, and further, if these changes are statistically significant:
   a) smoking consumption and prevalence among the TDRS target groups;
   b) awareness/knowledge of the dangers of smoking and of ETS, particularly among TDRS target groups;
   c) public attitude toward tobacco smoking in general;
   d) changes in smoking policies in schools, health facilities, daycare centres, restaurants and other places accessible to the public; and
   e) changes in exposure to ETS in the home, the workplace and public areas.

2. determine whether, in light of the trends observed in smoking prevalence and amount smoked since the introduction of the TDRS, there is any evidence that the 1994 reduction in price had any visible effect on tobacco consumption, particularly among Youth; and

3. determine whether the difference (if any) in smoking prevalence and consumption between provinces can be attributed to price differences.

1. Information Sources

There was no specific data collection undertaken for this study. The contractor used only information from already available surveys and other documents. The results of the following surveys were reviewed:

1) Survey on Smoking in Canada (SOSIC),
2) Media Campaign Monitoring and Tracking Studies (Sage 1995),
3) Health Monitoring Study (Tandemar Research Inc.),
4) Youth Smoking Survey (YSS),
5) Canada's Alcohol and Other Drugs Survey (CADS),
6) Canada's Health Promotion Survey (CHPS),
7) National Population Health Survey (NPHS),
8) Canada Health Monitor (CHM), and
9) Study on Youth Smoking - Ontario, (SYS-Ont).
10) National Longitudinal Survey of Children and Youth (NLSCY),
11) Surveys related to the Anti-Smoking Tracking Study carried out by the Sage Research Corporation (Sage 1996), and
12) 1995 Survey of Municipalities Related to Smoking By-laws in Canada. in 1996.
13) 1996 General Social Survey[23]

In addition, annual data on provincial cigarette sales, "real" per capita personal disposable income, price indices for cigarettes and populations were obtained from Health Canada and Statistics Canada (CANSIM). No additional data collection was made for this study.

SOSIC, Sage, Tandemar and YSS surveys were specially commissioned in conjunction with the Tobacco Demand Reduction Strategy. These surveys were designed to collect information on awareness of health risks from smoking and external smoke, attitudes towards smoking, smoking behaviour and change in smoking behaviour after cigarette prices dropped following the reduction in tobacco taxes. In addition, Sage and Tandemar surveys were designed to assess the extent to which TDRS media campaigns reached the intended target population.

CADS, CHPS and NPHS are Statistics Canada surveys which have a few questions on smoking. However, these surveys have large national samples which provide comparable and reliable estimates of the prevalence of smoking over the last 30 years. They can provide data for regions as well as for specific sub-populations (e.g., males 15 to 19). However, these surveys collect information from persons 15 and over. They do not provide any information about youths aged 12 to 15. This sub-population is considered to be at a high risk for smoking. CADS, CHPS and NPHS provide only a limited information about smoking, consisting mostly about the smoking habits of respondent groups.

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[23] Results of the 1996 Statistics Canada's General Social Surveys were not yet available at the time of the study. The 1996 GSS data used in this chapter added after. Even when taken into consideration, this additional data did not modified the conclusions already reached by the contractor.

2. Changes in Smoking Prevalence and Consumption

2.1 Prevalence

Smoking prevalence is generally measured as the percentage of individuals in the population who smoke at the time of the measurement or during a specific reference period. Consumption is generally defined as the amount smoked; it is usually reported as the number of cigarettes smoked by smokers either per day or per year.

A major difficulty in comparing results from various surveys is that the definition of smokers varies from survey to survey. Many surveys ask several questions to classify the individuals according to whether they smoke every day, smoke occasionally, have stopped smoking or have never smoked. The General Social Survey defines current smokers as regular (smoking at least one cigarette daily) and occasional (smoking on an occasional basis) smokers combined. The Survey of Smoking in Canada (SOSIC) defines current smokers as those who presently smoke either daily or non-daily[24].

Another difficulty is to find historical data with sufficient consistency that historical trend can be observed with a reasonable degree of reliability. Only Statistics Canada's surveys provide this type of consistency over several years. Finally, the TDRS was implemented between 1994 and 1996. Among all the surveys conducted in relation with the TDRS, only SOSIC provided data on a national scale that was sufficiently comparable to CHPS and GSS in content and reliability to be used for 1994 and 1995..

Table 1 on the next page shows smoking prevalence in Canada from 1965 to 1996.

The table shows that, with the exception of a few years, overall smoking prevalence has been steadily declining since 1965 for both men and women aged 15+ but the rate of decline has been less rapid since 1989 than during the preceding 24 years. Smoking among persons 20 and over has seen a steady drop throughout the period 1991 to 1996 except among the women 20-24 group which remained unchanged. The only increase since 1991 is among the males 15-19 group where prevalence increased from 20% in 1991 to 24% in 1996.

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[24] Survey on Smoking in Canada, Fact Sheet, Cycle 2, Health Canada, (November 1994).

Table 1
Smoking Prevalence in Canada
(1965 - 1996)

Year	1965	1970	1974	1975	1977	1978	1979	1981	1983	1985	1986	1988	1989	1990	1991	1994	1995	1996
Males	61	55	52	51	48	44	45	44	41	36	35	32	33	31	32	31	29	29
Females	38	38	39	38	38	37	37	35	34	32	31	25	29	28	30	29	26	26
Age 15-19																		
Males	55	56	54	51	49	36	47	45	38	28	24	20	21	21	20	27	25	24
Females	37	43	48	48	47	40	46	42	39	29	28	23	22	21	26	30	26	26
Age 20-24																		
Males	69	61	59	56	53	52	49	48	44	40	38	33	36	35	44	40	37	36
Females	50	52	50	49	51	50	40	50	48	41	39	40	38	34	36	37	31	36
Age 25-44																		
Males	69	61	56	55	53	48	46	48	44	41	39	41	37	36	38	36	33	35
Females	48	45	43	43	42	41	42	38	40	39	36	31	34	34	34	32	30	30
Age 45-64																		
Males	67	59	55	56	50	44	43	46	41	36	36	32	34	30	30	28	29	25
Females	36	36	36	38	36	34	34	33	32	30	29	34	30	26	31	29	23	24
Age 65+																		
Males	42	40	37	39	33	32	25	27	27	20	20	29	21	18	18	17	15	15
Females	12	11	14	14	15	15	13	14	15	18	14	14	16	14	15	15	14	12

Source: 1965-1990, Statistics Canada, Canada's Health Promotion Survey 1990, Technical Report Table 7-5, page 101. 1994-1995, Surveys on Smoking in Canada. 1991 and 1996, General Social Survey.

Despite the reduction in tobacco taxes in 1994 and an expected increase in smoking prevalence in response to lower cigarette prices, smoking prevalence has declined between 1994 and 1996 among all age groups. While it is not possible to attribute this positive result to the TDRS, it could be due to a combination of all anti-smoking campaigns, restrictions on smoking in public places, anti-tobacco regulations, and advice provided by public health and medical professionals.

In total, there were 60,000 less smokers aged 15+ in Canada in 1996 than there were in 1991 but there were 80,000 more among the 15-19 age group (males and females) as shown in Table 2. This is consistent with the widespread opinion that smoking in on the increase among youth.

Table 2
Actual Number of Smokers in Canada
(000s)

	1991	**1996**
Both Sexes 15+	6,469	6,409
Males	3282	3,348
15-19	185	239
20-24	438	373
25-44	1,672	1,719
45-64	767	790
65+	220	227
Females	3,187	3060
15-19	227	253
20-24	342	361
25-44	1,552	1,450
45-64	820	762
65+	245	235

Source: 1991 and 1996 General Social Surveys

2.2 Amount Smoked

Another indicator of the success of anti-tobacco campaigns is the decrease in the average number of cigarettes smoked. A limited number of surveys have collected this information. Reporting of information on the amount smoked also varied from survey to survey, making comparison of smoking over time complicated.

Among the surveys reviewed, the 1991 and 1996 General Social Surveys, the four cycles of

SOSIC (April 1994 to March 1995), the Sage surveys (1995 & 1996), the Youth Smoking Survey (1994) and the Tandemar Research Inc. survey (1994) asked questions on the amount smoked. The Tandemar survey was not used in this analysis because of its smaller sample size and the availability of same information from larger surveys.

SOSIC cycles 1 to 4 asked the same question on amount smoked to its panel of respondents. The Youth Smoking Survey also asked respondents questions on the amount smoked.

Table 3 shows estimates of the number of cigarettes smoked by males and females according to the 1991 and 1996 General Social Survey (GSS).

The table shows that about the same percentage of men and women smoked between 11 and 15 cigarettes. Where men and women differ is that 6% more men smoked more than 26 cigarettes per day, while 6% more women smoked between 1 and 10 cigarettes per day. On average, female smokers appear to consume fewer cigarettes than male smokers. The heaviest smokers (those smoking over 25 cigarettes a day) appear to have reduced their consumption the most between 1989 and 1996.

Table 3

Percent of Regular Smokers According to the Number of Cigarettes Smoked Daily (Population Aged 15+)

Number of Cigarettes Consumed daily	1989	1991	1996
Both Sexes			
1-10	26%	22.4%	27.9%
11-25	63%	67.3%	64.3%
26+	9%	9.9%	7.2%
Males			
1-10	21%	19.4%	22.9%
11-25	64%	67.5%	66.3%
26+	12%	12.8%	10.2%
Females			
1-10	31%	25.3%	33.4%
11-25	62%	67.1%	62.2%
26+	7%	7.1%	3.8%

Source: The 1989 data are from Smoking Behaviour of Canadians: A National Alcohol and Other Drugs Survey (1989) Report. The 1991 and 1996 data are from the General Social Survey (GSS).

According to the SOSIC, the average number cigarettes smoked daily ranged between 19.6 to 20.6 for men and between 15.6 and 16.9 for women. These estimates are slightly higher than those calculated (with certain assumptions) for men from the 1991 GSS and about the same for women. The slight differences between the two surveys could be due to the differences in time reference periods; GSS was conducted in 1991 and SOSIC in 1994-95. Table 4 shows average number of cigarettes smoked by daily smokers.

The data from table 4 also show that men smoked more cigarettes per day than women, and the number of cigarettes smoked daily increased with age till 64 and then dropped thereafter.

Sage surveys asked whether the respondents smoked more or less after the drop in cigarette prices, but did not ask the number of cigarettes smoked before and after the price drop. Information from the Sage surveys is analysed in the next section on the effect of price reduction on the amount smoked.

Data from the General Social Survey (1996) and the four cycles of SOSIC surveys (1994 -1995) shows that the average number of cigarettes smoked by men and by women has remained about the same or slightly decreased between 1994 and 1996.

Table 4

Average Number of Cigarettes Smoked by Daily Smokers
Based of Four Cycles of SOSIC Surveys

Survey Period	**Cycle 1 Apr-Jun 94**	**Cycle 2 Aug-Sep 94**	**Cycle 3 Nov-Dec 94**	**Cycle 4 Feb-Mar 95**	**GSS 1996**
Total Pop.	18.8	18.7	18.4	17.7	17.4
Males	20.6	20.5	20.0	19.6	18.8
Females	16.9	16.8	16.8	15.6	15.8
Age 15-19	13.2	12.7	12.2	11.4	11.5
Age 20-24	16.5	16.2	15.4	14.9	14.7
Age 25-44	19.7*	18.6	19.5*	18.0	17.9
Age 45-64		22.4		20.5	19.3
Age 65+	17.4	17.2	16.0	15.6	16.8

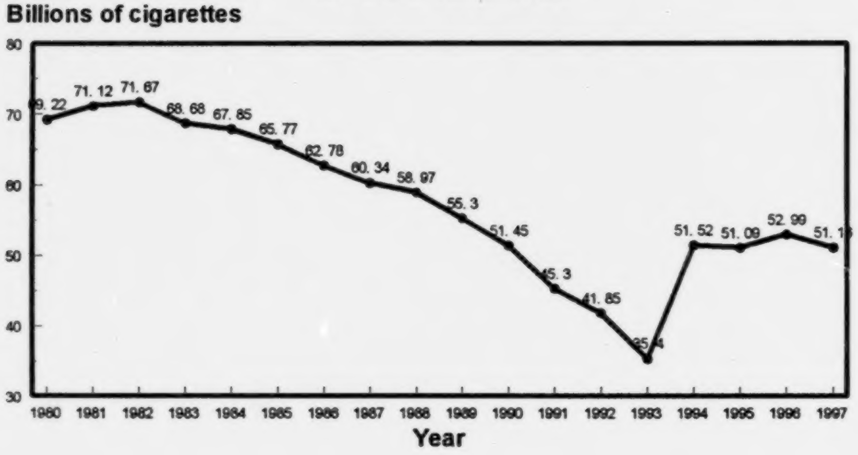
* Data are combined for age group 25-64.

Neither SOSIC or GSS collected data on smokers younger than 15 years of age. As a consequence, there is no trend data for this age group. The Youth Smoking Survey (YSS) found that the mean number of cigarettes smoked by 10-14 year Old was 6.7 and by 15-19 year Old, 11.7. SOSIC cycle 2 reports a slightly higher estimate of 12.7 cigarettes per day for 15-19 year Old but the 1996 GSS reports 11.5, almost the same as the YSS. These figures however should be interpreted carefully as it is well known that smokers tend to under report the number of cigarettes they smoke. As shown in Figure 1, the number of cigarettes sold in Canada actually increased from 51.5 billion in 1994 to 53 billion in 1996.

Figure 1

DOMESTIC CIGARETTE SALES

Canada 1980-1995



There has been no data collected on smoking prevalence or consumption among other specific TDRS target groups such as pregnant women, homeless, etc. Consequently, no information can be provided on these groups.

3. Effects of Price Reduction on Smoking Habits

None of the surveys reviewed provide reliable and prospective information to determine the effect of price changes on the smoking behaviour. Only the Sage surveys specifically linked quantities smoked to the reduction in prices. The Sage survey provides some information on the changes in smoking behaviour after the drop in cigarette prices. However, the data do not show any clear trends. For example, while 20% teens said that they were smoking more since the price drop, 18% told that they were smoking less. Five percent adults were smoking more since the price drop while 15 percent were smoking less.

Sage surveys asked smokers about how the reduction in prices had affected the amount of their smoking. Table 5 shows changes in smoking habits reported by smokers in Sage surveys.

Table 5
Effects of Price Reduction on Smoking Habit of Smokers

	Adults		Teens	
	Sage 2 (1996) (%)	Sage1 (1995) (%)	Sage 2 (1996) (%)	Sage1 (1995) (%)
Effects of the reduction in cigarette prices on smokers				
- smoke more	6	5	27	20
- Smoke about the same	76	80	57	61
- Smoke less	18	15	16	18

According to these surveys, only 5 to 6 percent of the adult (18+) smokers are smoking more after the price reduction and 15 to 18 percent are smoking less. On the other hand, 20% of teens smokers reported in 1995 and 27 % in 1996 that they are smoking more. While 18 and 16 percent of teens reported that they were smoking less.

These data are consistent with the possibility that the short term price elasticity of demand for cigarettes is less among adults than in teens. Adults have sufficiently large income available to them for cigarettes and have attained a level of smoking to satisfy their needs; small changes in cigarettes prices do not affect their smoking habit significantly. However, teens have comparatively less income available for cigarettes and the amount smoked by teens is still in on the increase. As a result, changes in cigarettes prices are more likely to affect cigarette consumption by teens.

There are no comparable pre- and post- TDRS data on the number of cigarettes smoked per day by smokers. Therefore, it would not be possible to attribute any changes directly to TDRS or to changes in prices. However, the data from Sage surveys show that a few adults are smoking more as a result of the reduction in prices but three times as many adults are smoking less. On the other hand, more teens have reported that they are smoking more as a result of the reduction in prices and a smaller number - same percent as adults - are smoking less.

4. Smoking Related Beliefs, Attitudes and Knowledge

The Youth Smoking Survey - 1994 (YSS) found that a very high proportion of youth were aware of the harmful effects of smoking; 91% felt that smoking is addictive and 90% thought that ETS was harmful to health. Table 6 below shows the beliefs of Youth regarding harmful effects of smoking and ETS by province and age groups.

Table 6

Percent of Youth Who Believe That Smoking is Addictive and ETS is Harmful to Health

Age Groups	Smoking is Addictive 10-14 (%)	Smoking is Addictive 15-19 (%)	ETS is Harmful to Health 10-14 (%)	ETS is Harmful to Health 15-19 (%)
Canada	85	96	84	96
Newfoundland	93	98	88	98
Prince Edward Island	93	98	88	98
Nova Scotia	90	97	89	98
New Brunswick	84	98	83	96
Quebec	74	95	83	96
Ontario	87	97	83	96
Manitoba	91	98	87	97
Saskatchewan	93	99	86	97
Alberta	91	98	87	97
British Columbia	90	96	86	98

Source: Youth Smoking Survey 1994, Technical Report.

The proportion of respondents who felt that smoking was addictive, and ETS was harmful was much higher in the YSS than in Sage surveys. Similarly, the proportion of respondents who felt that government should ban sponsorship of sporting and cultural events by cigarette companies was significantly higher in OADOS than in Sage surveys. However, these differences could be due to the differences in methodology and question wording.

In summary, a very high proportion of Canadian adults and teens are aware of adverse effects of smoking and ETS on health. Adults and teens both feel that the Health Canada (TDRS) campaigns clearly bring out the health issues related to smoking. Tandemar survey found that though the respondent found Health Canada campaigns relevant, they did not contain any new information.

There were significant differences in the estimate of support for banning sponsorship of sporting and cultural events by cigarette companies found by Sage and other surveys. Almost two-thirds of adult and teen smokers were aware of the dangers to their health from smoking. Because of many anti-smoking campaigns before and concurrent with TDRS, it is not possible to attribute public awareness and attitudes to specific campaigns (including TDRS).

4. Municipal Policies and Bylaws Restricting Smoking

Health Canada conducted two surveys (1991 and 1995)[25] of municipalities in Canada to obtain information on municipal bylaws on restrictions and prohibitions relating to the sale and use of tobacco products. These surveys are a useful source in examining pre-and post- information on municipal bylaws pertaining to smoking. The purpose of the surveys was to obtain information from all municipalities with populations over 10,000. The 1995 survey included additional municipalities with lesser populations until at least 75% (60% in provinces with large rural populations) of the provincial population was covered.

Information obtained from both surveys was used to update databases on municipal bylaws on smoking. The databases are "updates" and not results of specific surveys. The 1991 database is presented in 14 tables and the 1995 database in 15 tables, each table containing alphabetical listings of municipalities showing different types of bylaws passed by the municipalities. With the exception of one table in the 1995 database showing bylaws by broad category, all other tables in both the databases present alphabetical listings of municipalities for Canada as a whole, (i.e., without identification of the province). Therefore, it is possible to tabulate municipalities with bylaws affecting broad categories of areas (e.g., hospitals, day care centres) for 1995 update only.

Table 7 shows the number of municipalities included in 1991 and 1995 databases.

Table 7

Table Showing the Number of Municipalities in the 1991 and 1995 databases, by province.

	1991 Database	1995 Database
Canada	280	380
Newfoundland	---	1
Prince Edward Island	1	2
Nova Scotia	4	5
New Brunswick	1	23
Quebec	58	72
Ontario	118	147
Manitoba	11	11
Saskatchewan	18	26
Alberta	13	33
British Columbia	55	57
Northwest Territories	1	2
Yukon	---	1

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[25]. Smoking By-laws in Canada, 1991 and 1995, Health Protection Branch, Health Canada

The number of municipalities with smoking related bylaws has increased from 280 to 380, or by about one-third, between 1991 and 1995. These numbers, however, do not show the percentages of population covered by anti-smoking municipal bylaws.

Table 8 below provides comparisons between the numbers of municipalities with selected categories of bylaws from the 1991 and 1995 databases.

Table 8

Areas of Bylaws	1991 Database	1995 Database
Hospitals Facilities	50	103
Patient Care Areas of Hospitals	56	46
School Buses	93	90
Restaurants	146	143
Licensed Establishments	45	55

The number of municipalities with restrictions on smoking in hospitals has almost doubled between 1991 and 1995. Because of the nature of the databases, it is not possible to explain the reasons for the apparent decline in the number of municipalities with restrictions on smoking on school buses and restaurants.

In summary, the number of municipalities with bylaws affecting smoking in different places has increased by almost 33% between 1991 and 1995. However, the 1995 inventory still has only 380 municipalities. Three hundred sixty municipalities out of 668 municipalities reached by the 1995 survey did not have any bylaws related to smoking. Caution should be exercised in interpreting data from the databases. Powers for making bylaws with respect to smoking and delegation of powers to municipalities may vary from province to province.

5. Restrictions on Smoking in Canadian Schools

Additionally, Health Canada had commissioned three surveys (1990, 1992-93 and 1995) on nonsmoking policies within schools in Canada. These surveys provide indicators of changes in school policies on smoking by students and staff. However, it is not possible to determine which of these changes could be attributed to TDRS and which could have taken place in the absence of TDRS.

The 1990 survey of schools obtained information from 6572 schools and 576 school boards. The survey found that about 98% of schools in Canada had nonsmoking policies in place. About 59% had a totally smoke-free policy. About 97% of schools had some restrictions on smoking by staff, 67% had a totally smoke-free policy for the staff and 76% did not allow staff to smoke inside the school building. The 1990 survey also found that 84% of schools had a totally smoke-free policy for the students, and 93% did not allow smoking inside the school building.

The National Survey of Programs on the Prevention of Tobacco Use in Schools (1992-1993) asked schools about the restrictions on smoking during and after school. Table 9 below shows the percent of schools in Canada with ban on smoking for students as well as for teachers. The survey report provides information by provinces and territories and by type of schools (primary and secondary). However, the number of schools in most categories were under 20. Therefore, the data by province and territories is not presented here.

Table 9

Percent of Schools with Ban on Smoking by Students and Teachers by Type of Schools (1992 - 1993)

	Primary Schools		**Secondary Schools**	
Restriction Affecting	**Students**	**Teachers**	**Students**	**Teachers**
During School Hours	88.9	73.4	48.0	52.0
After School Hours	87.9	72.5	51.0	53.1

One would expect that more schools will have ban on student smoking during school hours than after school hours. For the secondary schools, the survey data are not consistent with this notion. However, the data show that close to 90% primary schools and 50% secondary schools in the sample have anti-smoking restrictions on students. About 75% of primary schools and 50% of secondary schools also have restriction on smoking by teachers.

The 1995 survey of 4175 schools found that almost all (97%) of schools have some type of policies to control smoking. This percentage is 1% lower, but not significantly lower, than that found in the 1990 survey. The lower rate could be due to the differences in sampling methods and/or questionnaires.

The 1992-93 survey reported a much lower percentage of schools having smoking policies in place than 1990 and 1995 surveys. However, the 1992-93 survey had a much smaller (effective) sample size of 118 school boards and 227 schools. The 1990 survey had an effective sample of 536 school boards and 6572 schools, while the 1995 survey had 4175 schools. Data from the 1990 and 1995 surveys were used to examine changes in the number of schools with smoking policies.

Table 10 below shows the provincial percentage distribution of the school boards with total and partial ban on smoking for students. Total ban, for the purpose of this table is defined as prohibition of student smoking "total smoke-free at all times or during school hours" for the 1990 survey; or "either indoors and outdoors, or indoors but not outdoors" for the 1995 survey.

The table shows that while the percentage of the schools with some nonsmoking policies have not changed between 1990 and 1995, significantly more schools have more restrictive policies for student smoking.

In summary, the percentage of schools with nonsmoking policies was very high prior to the introduction of TDRS. This percentage has more or less has remained the same. However, there is a significant increase in the number of schools with more stricter nonsmoking policies.

Table 10

Percentage Distribution of the School Boards with Total and Partial Ban on Smoking for Students

Year Province	Total Ban 1990	Total Ban 1995	Partial Ban 1990	Partial Ban 1995
Canada	66	83	32	11
B.C.	49	89	48	2
Alberta	71	87	26	5
Sask	69	86	26	2
Manitoba	71	93	26	---
Ontario	77	97	22	---
Quebec (*)	12	34	88	57
N.B.	36	89	61	1
N.S.	80	91	19	3
P.E.I.	41	97	59	---
N.F.	64	92	31	---

Surveys conducted by the Health Promotion and Programs Branch, Health Canada.

6. Smoking Policies in other Public and Commercial Settings

In 1995, as part of a larger national study on smoking policies in a number of public settings the following surveys[26] were undertaken:

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[26] . These surveys were undertaken by the Office of Tobacco Reduction Programs, Health Promotion and Programs Branch, Health Canada.

a. a telephone interview survey of 100 large Canadian companies covering the four sector of retailing, food services and hotels, commercial landlords and bus terminals,
b. a survey of 2,396 (approximately 56% of such facilities in Canada) hospitals, long term and chronic care facilities, and other residential care centres,
c. a survey of about 2,554 (approximately 30% of such centres in Canada) licensed day care centers, and
d. interviews of 198 day care agencies for voluntarily licensed private home day-care.

Summary reports for these surveys were available for the analysis. The reports did not include information on the sampling methodology, size of the universe and response rates. It is, therefore, not possible to assess the reliability and quality of the survey data.

Smoking Polices in Commercial Settings

The telephone survey included 100 large Canadian businesses (typically with over $100 million in annual sales) covering four commercial sectors; namely, food services and hotels, commercial landlords and bus terminals. Most of the companies are (or appear to be) multi establishments. With the exception of hotels, the public visiting commercial settings for a relatively short period of time. However, the clients of the hotels, generally, substitute the hotel as their home away from home. They may expect to be able to smoke in their rooms.

Most of the commercial establishments surveyed have some form of a smoking policy. About 55% of all policies designate indoor smoking areas that are not separately ventilated, thereby, exposing the public as well as employees to second hand smoke (ETS). If effectively enforced, only about 30% of all policies have the potential to protect the public from ETS.

7. Smoking Polices in Health Care Institutions

In an earlier section, information obtained from municipalities about their policies restricting smoking in hospitals in their jurisdiction was presented. This section discusses information obtained from hospitals, long term and chronic care facilities, and other residential care centres. Table 11 gives the distribution of smoking policies by province.

Overall, 96% percent of all institutions surveyed have either a written or an unwritten smoking policy. With the exception of New Brunswick, over 93% of health care institutions in all other provinces have either a written on an unwritten smoking policy. Thirty-one percent of the health care institutions specify taking formal disciplinary measures and 9% specify fines.

As in the case of hotels, the inmates of the health care institutions are there usually for a longer stay. And, unless they are under the instruction from their physicians not to smoke, they may expect to have a place (indoor or outdoor) where they can smoke. Only 3% of policies prohibit smoking indoors and outdoors.

The health care sector is acutely aware of the dangers of smoking and exposure to ETS. If enforced, 60% of all places could provide protection from second hand smoke inside health care facilities.

Table 12

Percent of Health Care Institutions with Written and Unwritten Polices by Province

Province	Written Policies	Unwritten Policies	No Policies
Canada	83	13	4
B.C.	83	15	2
Alberta	94	6	0
Sask	84	12	4
Manitoba	88	10	2
Ontario	87	10	3
Quebec	78	15	7
N.B.	59	26	15
N.S.	81	17	2
P.E.I.	90	10	0
N.F.	73	24	3

Smoking Polices in Daycare Centres and Agencies

The survey included 2,554 licensed day care centres and 198 day care agencies. The summary report does neither clarify the relationship between the day care agencies and the home child care nor provide details on the number of day care agencies across Canada.

Table 12 shows percent of day care centres with smoking polices by province.

The daycare facilities are much different from other public places. Children attending daycare centres are generally too young to smoke. However, all children, whether they are in a licensed daycare or a home child care, could be subject to ETS, if there are no restrictions on smoking by the care givers.

Almost all (93%) licensed daycare centres have either written or unwritten smoking policies. Further, 51% of daycare centres with smoking policies ban smoking both indoors and outdoors.

Only 62% of daycare agencies regulate smoking in home daycare settings, 45% have written policies and 17% unwritten policies. Nineteen percent of the daycare agency policies provide for revoking the license of the day-care home and 38% for dismissing the child care giver who disregard smoking restrictions

Table 12

Percent of Day care Centres with Written and Unwritten Polices by Province

Province	Written Policies	Unwritten Policies	No Policies
Canada	46	47	7
B.C.	34	57	9
Alberta	61	33	6
Sask	76	24	0
Manitoba	51	41	8
Ontario	50	46	4
Quebec	36	57	7
N.B.	35	55	10
N.S.	31	54	15
P.E.I.	56	43	1
N.F.	49	51	0

Thirty-eight percent of daycare agencies have no policies restricting smoking in home daycare setting. This is not to say that all children in these homes are subjected to ETS, but, rather, that their exposure to ETS depends on the smoking practices of the home care giver.

With the exception of daycare centres in Nova Scotia and New Brunswick, over 90% of daycare centres in all other provinces have some form of smoking policies. Less than 40% of daycare centres in British Columbia, Quebec, Nova Scotia and New Brunswick have written policies.

In summary, a large percentage health care institutions, daycare centres and large commercial settings have policies to restrict smoking and reduce exposure to ETS. However, the level of enforcement on smoking policies varies from sector to sector and within each sector.

8. Exposure to External Tobacco Smoke in Homes and Workplace

Relevant data were not available to determine whether the TDRS has led to a decrease in the exposure from ETS in homes and workplaces. However, information presented in earlier sections indicate that:

a. the awareness of the dangers to health from ETS is very high among all teens and adults as well as among smokers and nonsmokers,
b. the number of municipalities with bylaws restricting smoking in public places under their jurisdiction is increasing,
c. the number of schools with a total ban on smoking is increasing, and
d. a large percentage of health care institutions, daycare facilities and other commercial settings have policies restricting smoking.

9. Price Elasticity and Demand for Cigarettes

As mentioned at the beginning of this chapter, the main objective of the Tobacco Demand Reduction Strategy (TDRS) was to counteract the increase in tobacco consumption that was expected to result from the decrease in taxes on tobacco. The evaluation then attempted to answer the two following questions:

1. in light of the trends observed in smoking prevalence and tobacco consumption since the introduction of the TDRS, is there any evidence that the 1994 reduction in tobacco price had any visible effect on tobacco consumption, particularly among youth? and

2. can the difference (if any) in smoking prevalence and consumption between provinces be attributed to price differences?

As part of their contract, Madhu Joshi & Associates (MJA) were asked to address these two questions. This section is a brief summary of MJA's conclusion. The full discussion on price elasticity is provided in Appendix E C.

9.1 The concept of elasticity

Consumption of most goods and services decreases with an increase in price and increases with a decrease in price. Taxes on tobacco sales have been used as a source of revenue by governments in most countries over a long period of time. The effects of changes in taxes on tobacco sales, and consequently on the government revenues, have been the subject of many studies. After having reviewed several studies done on this subject, MJA came to the following conclusions:

1. the long-run impact of a rise in price on the change in consumption will be higher than its immediate impact, say, over a year. Most studies have found a moderate lag of three to four years between the short-run and full long-run impacts. A survey of elasticities by Finance Canada (1993) shows that in Canada consumption falls by only 0.3 to 0.4 percent in the short-run, and by 0.6 to 0.8 percent in the long-run. To achieve a targeted percentage reduction in tobacco consumption, price will have to increase by a larger percentage or the price hike accompanied by an active anti-smoking campaign;

2. overall, results of most studies tend to show that policy-makers have to wait two to three years for the major impact of higher tobacco prices to work itself through consumption;

3. the elasticities imply that smokers are more prone to increase their consumption of tobacco in response to a fall in price than they are to cut it down in the event of a price increase;

4. the impact of a higher tobacco price on teenagers is greater than for adults. This result is consistent with the expectation that teenagers have more limited budgets and have little room for manoeuvre to absorb price rises;

5. smuggling takes place when the level of the tobacco tax rises above a threshold amount;

6. income elasticity appears to be quite low, this may be explained by the fact that most people spend only a small part of their rising incomes on tobacco use.

Studies undertaken so far have not succeeded in isolating the effect of "structural changes" from price and income. Examples of such "structural changes" are media campaigns and various strategies to reduce tobacco demand, changes in generational tastes and the availability of new products. Structural changes are continuously taking place even as taxes are varied by governments to affect prices. Hidden in the estimates of price elasticities are impacts of these structural adjustments.

Existing models are not useful in examining or predicting effects of price changes on the prevalence of smoking. They are essentially macro-economic models, unsuitable for a formulation of a comprehensive anti-smoking policy. A more detailed study based on surveys at various points in time is required to meaningfully separate impacts of structural changes from those of tobacco prices.

While price elasticity models developed so far are useful in examining the effect of changes in prices on total tobacco consumption, they are not useful in studying the effects of prices on specific population subgroups; e.g., provincial populations, persons in specific age groups, or persons belonging to specific target groups (e.g., youth, pregnant women, unemployed, etc.). In other words, would be ideal for such analysis

Cross-sectional and time series data on disposable incomes, smoking habits, expenditures on tobacco products (by target groups), and cigarette prices would be needed to study the effects of changing prices on smoking habits and tobacco consumption. Data from SOSIC type surveys would be ideal for such analysis.

10. Effect of Prices on Provincial Sales of Cigarettes

When the federal government reduced taxes on tobacco in 1994, some provinces followed suit while others kept their taxes at the same level. This created a further price differential between prices of cigarettes in different provinces. Madhu Joshi & Associates examined the effects of these differing reductions in taxes on cigarette sales for each province using a simple model which relates per capita cigarette sales to per capita real personal disposable income and provincial real price indices for cigarettes for the period 1981 to 1995.

Though firm conclusions could not be drawn due to the short periodicity of data, the following interesting results were obtained:

1. lag in the adjustment of desired consumption to its actual value is quite moderate, say, not more than a couple of years. This is an encouraging conclusion for formulating a policy to reduce the smoking habit through higher tobacco prices via higher taxes;
2. price elasticities fall within the range of -0.5 to -0.6, supporting the evidence from the survey above that price elasticities are significantly below unity; and
3. Tobacco price is a more pervasive and consistent determinant of tobacco consumption than disposable income.

Estimated elasticities were used to forecast cigarette sales for the years 1994 and 1995, two years following the reduction in taxes and the introduction of TDRS. A comparison of estimated and observed sales showed the models used generally overestimated consumption in 1994 and 1995 for provinces other than Alberta. The result could imply that media campaigns and a gradual tightening of spatial restrictions on smoking generally offset the impact of a decline in cigarette prices. Secondly, overestimation is higher in 1995 than in 1994 implying that the impact of anti-smoking initiatives had spread to a larger proportion of the population in 1995 relative to 1994, or that the message was more forcefully seeping into the peoples' psyche, inducing them to make drastic reductions in smoking.

It is suggested that there is a need for more relevant desegregated data in order to get a better insight into differential effects on price changes on the smoking behaviour of special cohort populations. Such analysis could, for example, provide information on the quantitative effects of prices on the smoking behaviour of youths between the ages of 10 and 18, pregnant women, and people in different occupations. Different groups have different incomes, live/work under different environments and have different attitudes towards smoking. A study of different responses of these groups to price could provide additional valuable input to the formulation of realistic and effective anti-smoking campaigns.

CHAPTER 11: STRATEGY-WIDE ISSUES

In addition to conducting focus groups with Aboriginal people and reviewing research undertaken under the TDRS, Ekos Research Inc. conducted over fifty interviews with Health stakeholders within and outside Health Canada. People interviewed inciuded Health Canada's officials, Aboriginal people and representatives from non-governmental organizations and provincial governments. The issues discussed in these interviews were the "strategy wide" issues identified questions 6 to 10 and 44 to 46 in Chapter 2. The purpose was to obtain the views of people who have been closely associated or were familiar with the TDRS. concerning. This Chapter presents the summary report from Ekos. It also includes comments from the experts who provided feedback on the preliminary findings of the evaluation as discussed in Chapter 2..

The findings from the interviews are organized into three broad issues:

(1) Program design and resources:
(2) Objectives achievement, impacts and effects: and
(3) Lessons learned and alternatives.

Within each broad issue category, results from the each of the data sources are identifiable, indicated as: federal key informants (or respondents), provincial/territorial key informants (or respondents), external stakeholders, review of research, aboriginal focus group respondents, and expert panel members.

1. Program Design and Resources

Four main program design and resource issues emerging from the five data sources are described in this section: the extent to which TDRS was built on and coherent with previous initiatives; type of projects funded and allocation of resources between components; resource levels; and continuity of funding.

1.1 Continuity and Coherence

Findings regarding this issue suggest that the design of TDRS was coherent with its principles and objectives. This was more strongly felt to be the case by respondents within Health Canada than those in provincial/territorial governments or non-governmental organizations.

Overall, respondents felt that the design and implementation of the various components of TDRS had been at least somewhat consistent with its overall objectives and felt that the various initiatives of TDRS were internally consistent and complementary. However, several federal and provincial/territorial respondents felt in many cases that it was impossible for initiatives to be consistent with each other because there was no overall plan for the entire Strategy. Such a plan would have facilitated implementation, connections and integration among projects.

The consensus among federal respondents was that materials and resources previously developed (e.g., Diary of a Teenage Smoker, Smoke-Free, PAL) had been used, although Aboriginal respondents stated that most are not relevant to First Nations and Inuit communities. Many existing materials had been updated and adapted during the course of the TDRS, but some are still out-of-date.

Most people interviewed were of the opinion that TDRS had built upon services, programs and other initiatives that had existed prior to it (where those existed), although there was disagreement as to how effectively this had been done. There was some lack of continuity noted; for example, one respondent felt that the TDRS could have used or combined materials and efforts of the anti-drug campaigns. Both these groups also noted that the lack of planning or time to develop a coherent strategy at the outset limited the effectiveness of the TDRS in this respect.

1.2. Allocation of Resources Between Components Type of Projects Funded

With respect to resource allocation across TDRS components, the majority of federal and provincial/territorial key informants felt that funds had been allocated appropriately across the initiatives. A concern about the allocation process was raised by several external stakeholders, who strongly felt that there should have been more collaboration in decision-making about projects. Arguments for increased funding to several components were, however, made. Several federal and provincial/territorial key informants felt that more money should have gone into the research component as research increases the knowledge base from which to develop programs. There were divided opinions on the issue of enforcement, with some respondents feeling that more funding was required, and others feeling enforcement to be relatively ineffective. There also were calls for more to be allocated to the community level. Annual community funding levels should be fixed in advance for each territory, according to one respondent. Finally, it was suggested that more funds be allocated to promotion, allowing longer media campaigns. While some expert panel members had difficulty judging the appropriateness in the balance across program components given the lack of a clear plan or targets, the majority felt that the elements of TDRS had been comprehensive and appropriate. It was suggested by several experts that TDRS should have invested proportionately more funds in prevention, especially among youth.

While the allocation between components was generally regarded as appropriate, a need was felt in many settings for some flexibility in terms of deadlines and decision-making structures. Community development projects such as those undertaken with First Nations take time which is made difficult with stringent deadlines. The TDRS design relied on funding community-based activities through non-governmental organizations, which created additional problems in some regions. For example, in one of the territories, no NGOs could take on the funding and Health Canada did not delegate the necessary powers to territorial officials. In the territories, funded projects started only a year ago so it is doubtful that these will have long term impacts. A similar problem was noted by some provincial/territorial respondents, in that funding was not allocated to the provinces' most natural tobacco intervention units, the community health structures: "It's as if Health Canada thinks that community health structures are not involved in their communities."

Calls were also made for regional Health Canada offices to be more independent regarding the selection of projects to be funded.

Another resource allocation issue was the type of project funded and the groups targeted. Overall, the allocation of resources among target groups in TDRS was generally regarded as appropriate given the aims and focus of the Strategy. For example, a project targeting immigrants was funded in an area where there are very few of them and this was not well appreciated by the stakeholders in that locality. Projects with a more generic approach would have been more appreciated in this low-populated area. Some criticized what they described as the use of "quotas" in the allocation of funds, which led to what were perceived to be poor projects which met some "pre-identified category established by Health Canada".

Many arguments, however, were heard for stronger support to certain target groups. First among these was the Aboriginal population. Funding levels here did not adequately recognize this group's higher rater of tobacco consumption, according to some key informants in both federal and provincial governments. Others felt that the focus should have been almost exclusively on youth with less emphasis on women. Still others noted that TDRS efforts aimed at women failed to recognize tobacco as primarily an addictions issue, and to take into consideration women's social context. Some expert panel members favoured even stronger targeting of youth.

1.3. Resource Levels

Regarding overall resource levels, there was almost no perception amongst respondents, except from *aboriginal groups* funded through the Medical Services Branch, that TDRS lacked sufficient resources considering the short time frame of the Strategy. *Expert panel members* were particularly critical in this regard: for example, one stated that: "random short-term activity will get us nowhere, even if we generate huge amounts of it by handing out piles of cash." It seems unlikely that insufficient funding levels were a major barrier to achievement of TDRS objectives.

1.4. Continuity of Funding

Concern was widely expressed over continuity of funding, especially among provincial/territorial respondents, external stakeholders, and expert panel members. There was strong consensus that visible results from tobacco interventions, especially those with a community development approach, could not be expected to bear fruit within three years. In order for results to be seen at the level of the population and especially among resistant groups, efforts would be required for longer than the life of the Strategy.

According to one respondent, tobacco councils and tobacco groups at the community level were given large amounts of money and not enough time to develop a plan before the money had to be spent. Now these councils are struggling and may close. It is believed by this respondent that the closure of these councils will result in a decrease of tobacco as a priority issue in Canada. Many external stakeholders were uncertain about the extent to which community groups would continue to work on the issue in the absence of continued TDRS funding, and one respondent estimated that only one quarter of groups would continue their tobacco-related efforts. The absence of continuity constrained potential impacts of TDRS.

1.5. Coherence With Other Programs

Almost all federal key informants concurred that the TDRS objectives and interventions were consistent with other priorities and policies of the Department and, to a certain extent, the federal government. For example, it was indicated that through TDRS, First Nations and Inuit had developed a capacity to do research and this was consistent with a move towards self-government. TDRS was also said to be consistent with the federal role for knowledge development and legislation. Certain inconsistencies between the TDRS and other federal departments were nevertheless noted. Examples provided include the Department of Finance and the rollback of taxes, Agriculture Canada's subsidies to research on tobacco growing, Corrections Canada's sale of tobacco products to inmates, and Heritage Canada's permitting tobacco company sponsorship of cultural events. Links needed to be made with post-partum programs undertaken as part of the Child Development Initiative. To the extent that any inconsistencies or opportunities for synergy were not addressed, TDRS's potential effectiveness is diminished.

1. 6. Conclusion: Program Design and Resources

The initiatives implemented under TDRS are generally regarded as consistent with the Strategy's objectives and with overall departmental and federal orientations. However, complementarity among TDRS projects was lacking. This was attributed to a lack of an overall plan and a fragmented approach. Original resource levels were generally regarded as more than adequate, except among First Nations communities. Concern was expressed about the negative effects of short-term funding. Thus, although funding levels would not have been a barrier to TDRS's capacity to achieve its objectives and other desired effects, other program design issues were more problematic.

2. Objectives Achievement and Impacts and Effects

This section examines TDRS's success in achieving its objectives, from the point of view of program officials and key stakeholders. Unexpected and negative impacts are also discussed. Overall, our data indicate that TDRS is perceived as having been only moderately successful in achieving a number of its objectives. Greatest success was noted in the area of improved knowledge and attitudes, but these were seen to have been influenced by factors outside of TDRS. It was noted by many data sources that it is impossible to know what would have happened in the absence of TDRS. There was also a strong belief that the objectives of the TDRS were not realistic for a three-year initiative.

2.1 Tobacco as a Health Priority

One of TDRS's objectives was to increase the priority of tobacco control as a public health measure in Canada. Over all the data sources, there were mixed perceptions of whether and how the priority of the tobacco issue has evolved over the period covered by the Strategy. As explained below, while some changes in the tobacco control environment may have occurred since TDRS was implemented, these are seen as at least partly due to other factors.

Within Health Canada, over half of the federal respondents felt tobacco control has increased as a priority issue since TDRS was introduced. Examples provided included increased news coverage of tobacco issues, new local and national legislation (e.g., Selling Tobacco to Minors Act; banning of tobacco advertising at cultural and sporting events) and its enforcement (e.g., hiring of enforcement officers), development of materials and resources, and increased correspondence from the public. Most provincial/territorial respondents also felt that the issue of tobacco control had increased in priority as a health issue since TDRS was introduced, because some provincial/ territorial Health Ministries are developing policy, and some municipalities and health sectors are looking at smoking regulations resulting in the designation of areas such as schools as nonsmoking.

All expert panel members agreed that the tobacco control environment has changed favourably since the introduction of TDRS — and all also agreed that TDRS is probably not responsible for much of this change. *Expert panel members* also noted that TDRS has kept tobacco clearly on the public health agenda and provided some data which will be useful to the tobacco control environment and to existing coalitions and agencies.

2.2 Change in Canadians' Attitudes and Knowledge Regarding Tobacco

Federal, provincial/territorial and external stakeholder key informants expressed varied opinions as to whether attitudes and knowledge levels pertaining to tobacco consumption and environmental tobacco smoke (ETS) have changed since TDRS. However, most provincial/ territorial and some federal respondents believed that attitudes and knowledge levels pertaining to tobacco consumption and ETS have changed since TDRS and that TDRS has contributed positively to these changes. Respondents noted that there have been policy changes in some of the smaller communities, there is more media awareness, resources have been created and people are talking about it more. A few respondents felt that there has been an increase in awareness from the banning of smoking in public areas due to local legislation. TDRS media campaigns as well as Bill C-71[27] were felt by some respondents to have had at least some impact on people's awareness and knowledge levels on the dangers of tobacco. However, other factors outside TDRS also raised awareness, particularly provincial development of anti-tobacco legislation and other activities of the provincial/territorial health ministries and provincial/territorial smoking councils, as well as the American media. Among those who believed that changes in attitudes and knowledge have occurred, it was felt that those concerning ETS had improved most significantly.

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[27] Bill C-71 was passed by the House of Commons on March 6, 1997. The Act regulates the manufacture, sale, labelling and promotion of tobacco products.

ETS was described by two respondents as a "real emerging issue" and they felt that the TDRS was a catalyst for this change. Another stated that the ETS advertising campaign was one of the most successful campaigns Health Canada has conducted and felt that it had an impact on knowledge and attitudes.

Among the minority of federal, provincial/territorial and external stakeholder respondents who felt that there had either been little or no substantial change in knowledge and awareness levels, some suggested that Canadians' pre-TDRS knowledge was already very high. According to other respondents, TDRS efforts should have focussed much more on smokers' behaviour and less on the general public. It was suggested that the knowledge level of those directly involved in TDRS had increased to a great extent, but this knowledge had not been disseminated. Of the three groups interviewed, external stakeholders were the least likely to see improvements in Canadians' knowledge and attitudes since TDRS. Some respondents from all groups interviewed deplored the lack of data to support any conclusions about the effectiveness of TDRS in changing awareness and knowledge levels.

Aboriginal respondents in the focus groups felt that through community-based projects, notably workshops at the community or tribal council level, were successful in raising awareness of non-traditional tobacco-use. Of importance as well were the capacity-building effects of the TDRS for sustained awareness efforts. *Federal respondents* noted that TDRS brought First Nations and Inuit into the fight against tobacco and encouraged introspection within those communities as to the cultural role of tobacco.

Expert panel members held mixed opinions about TDRS success in changing Canadians' knowledge and attitudes, with some stating that despite initially high public awareness levels, the combination of media campaigns, policies and enforcement activities have raised global and local awareness. Others felt that there is no evidence that there was any shift in knowledge from 1994 to 1996, and that tremendous gaps in public knowledge remain. Regarding ETS, expert panel members suggested that although survey data suggest improved knowledge perhaps resulting from TDRS media campaigns, it is difficult to tie this to TDRS.

2.3 Reduced Risk of Tobacco Consumption

Impacts observed by federal respondents on risks of tobacco consumption to date varied, with some respondents indicating there had been no impacts. Others felt that it is unrealistic to expect TDRS to have had an impact given the tax rollback. Several impacts were noted which could indirectly reduce risk of smoking, including: a more forceful anti-tobacco lobby; increased confidence of youth nonsmokers to speak up; additional community resources and programs aimed at TDRS target groups (including gender sensitive programs and resources); and involvement of a great number of actors from federal government down to the grassroots. It was felt that although direct impacts of TDRS may not yet be observable, in the long term there would be changes in peoples' smoking behaviours and reduced smoking take-up as a result of TDRS.

Provincial/territorial respondents also noted that TDRS has given some continuity to tobacco reduction across Canada.

Impacts on risks of smoking noted by provincial/territorial representatives also varied. It was strongly felt by some respondents that the objective to minimize tobacco consumption was not even addressable because of the tax reduction. (Some provincial respondents seemed unaware that TDRS had been implemented to counter the tax cut.) A critical viewpoint was that there had been no impacts other than to fill Health Canada's need to show that the tax rollback had no significant effect on tobacco consumption. Short-term impacts that were cited include increased pressure on smokers to give up tobacco and a recognized need for long term cessation support. In the long term, provincial/territorial respondents felt that the amount of knowledge that has been generated will assist those working in the area of tobacco for a long time in helping to keep the issue of tobacco as a priority. The long-term impacts of community action programs were questioned by provincial/territorial representatives, external stakeholders and expert panel members, especially if public funding disappears.

In terms of the objective of minimizing the risk of an increase in tobacco consumption, both external stakeholders and expert panel members felt that TDRS had not been very effective, largely because price is such an important factor in consumption, particularly among youth. However, external stakeholder respondents identified a number of achievements of the TDRS related to reduction of smoking risk. Two thirds of the external stakeholders interviewed agreed that, as a result of the TDRS, there are more people and community groups working on the issue of tobacco control. TDRS is seen as having been successful at "pushing things down to the grassroots" and developing community infrastructure, and that more people and groups are now aware of and involved in tobacco control issues. They questioned, however, how many would continue to work on the issue in the absence of funding. Expert panel members, however, concurred that TDRS was unable to offset the risk of an increase in tobacco consumption in those groups most likely to initiate or increase consumption because of lower prices. It was noted by panel members that what seems to have happened is what would have been expected to happen from the literature, in the absence of TDRS (i.e., smoking increases among price sensitive youth) — leading to a conclusion that TDRS was ineffective in this regard.

There was some feeling among aboriginal focus group respondents that TDRS projects had resulted in less smoking within the Aboriginal communities. TDRS had a significant impact, according to some participants, on the health centre offices which now give a higher priority to tobacco issues. Federal respondents noted as impacts an increased capacity of First Nations and Inuit for health planning, around tobacco in particular, and an increased capacity of the First Nations and Inuit youth to conduct research.

2.4 Denormalization of Tobacco Use

The objective of denormalizing the use and marketing of tobacco products is seen as difficult to meet because it is countered by media and other influences. While some data sources were pessimistic about this TDRS objective, others perceived positive impacts.

Regarding denormalization of tobacco use, a number of achievements of the TDRS were noted by federal key informants. These included: enforcement of sales of tobacco to minors legislation; general learning of policy makers and programmers; and contributions to tobacco legislation (particularly local bylaws). Others suggested that the objective to further denormalize the use and marketing of tobacco products had not been achieved because the Supreme Court of Canada took it out of their hands when they made it legal for tobacco companies to advertise. It was noted by one respondent, however, that Bill C-71 which followed from the Supreme Court ruling has contributed to meeting this objective. Another noted that it had not been possible to achieve this objective through the mass media campaign (advertising). Health Canada tested advertisements which were critical of the tobacco industry, but found that the public was not supportive of this approach. External stakeholders and expert panel members, however, felt that the TDRS did very little to further denormalize the use and marketing of tobacco products. Many criticized Health Canada for not being willing to challenge the tobacco industry in the media campaign. These two respondent groups were disappointed that Health Canada was not willing to take a harder approach (similar to what was done in a number of American states, including California) against the industry in advertisements. Expert panel members concluded that TDRS has accomplished very little in terms of denormalization, mostly because of the contradictory effects of the various legislative initiatives or because of the continued ready access of tobacco products to youth

Most TDRS impacts mentioned by provincial/territorial respondents were in the area of tobacco control and denormalization, including: developments in provinces/territories that had no anti-tobacco activity before TDRS; the Tobacco Control Blueprint and Tobacco Act; improved enforcement of legislation; awareness of ETS; and more people working towards tobacco legislation.

2.5 Impacts on Target Groups

Opinion was divided as to the impact of TDRS on its key target groups, and as to the success of TDRS in minimizing the risk of an increase in tobacco consumption among these groups. According to some data sources, TDRS activities were well focused on the target groups of interest, reaching many groups with specific messages. Some target groups in remote areas had not been exposed to community projects before TDRS. The targeting of high risk and high user groups (e.g., schizophrenic women) was also said to be important. A few federal respondents felt that TDRS was especially successful in reaching mothers and pregnant women. With respect to youth, some respondents felt that TDRS has enabled youth to become involved in and empowered by the tobacco issue and provided guidance for planners in designing programs for them. However, many external stakeholders felt that impacts with many target groups (including youth and disadvantaged populations) were limited by the fact that there are so many factors at play in leading individuals to smoke. The increase in tobacco consumption among youth was cited as one indication that TDRS was not successful in combatting the impact of lower prices. Furthermore, many external stakeholders felt that the success of TDRS in minimizing the risk of an increase in tobacco consumption in these target groups was limited by cutbacks in funds. Overall, expert panel members could not conclude that TDRS has been successful in reaching its high-risk, resistant populations. They also noted the general inadequacy of surveillance monitoring systems for TDRS, which fail to provide meaningful data on TDRS target groups.

The *review of research* indicates that the allocation of research funds only partly targeted TDRS priority groups, with the majority of projects aimed at the general public, followed by youth. Few research funds were expended on projects targeting women or resistant priority groups. Although some research projects focused on groups other than those identified as one of the target groups for TDRS, very few projects did not have at least one priority group as their target. Even so, the results of many of the research projects which did not focus on a specific target group will have an impact on them.

Some external stakeholder respondents and all expert panel members also felt that the long-term impacts of community projects will be limited without a significant effort to disseminate results and findings from projects.

2.6 International Impacts

Several federal respondents mentioned international impacts of TDRS, including: development of legislation in other countries; establishment of a Coordinating Committee on Tobacco Control in the Ukraine; drafting of a framework by the World Health Organization to look at world wide regulations to govern the marketing of tobacco; and establishment of key points of contact with other countries.

2.7 Research Impacts

The research review indicated, overall, that TDRS-supported research did provide useful information to plan and evaluate other components of the TDRS. This was an important objective of more than half of research projects studied, while others were aimed at improving policy and legislation. For those projects that did not have program design, evaluation or policy as their focus, most were still very much linked to TDRS and its goals and objectives. It was also felt that results of these projects have already influenced (or have the potential to influence) program and legislation design. Some of the research undertaken was the only project of its kind in Canada and, in some cases, the world.

Overall, it was the perception of those interviewed in the *research review* that the results and information provided by the research was comprehensive both in terms of the overall research as well as in terms of their target groups. While gaps were noted in some of the research, this was not seen as a weakness in the research undertaken. Rather, it was felt that through the research the gaps were highlighted, as well as new avenues for research identified. Examples of areas where more research is needed included ETS and immigrant youth.

In the key informant interviews, federal respondents noted that the research undertaken through TDRS has gone beyond the norm and looked at the behaviours of smokers, determinants and prevention. Benchmark studies were undertaken, and advertising was based on more research than ever before, resulting in a better campaign. The Survey on Smoking in Canada and Youth Smoking Survey are said to have provided excellent data.

Expert panel members were, however, critical of TDRS research. Again, the issue of dissemination was regarded as highly deficient: panel members noted that in some cases, reports were completely unavailable; in others, only highlight reports or no reports at all were ever published, and much of the commissioned research has not been submitted to scientific journals. Expert panel members also criticized the lack of funds to carry through the results of sometimes years of research and millions of dollars into the design and implementation of more effective interventions. Funding of research through NHRDP was based on scientific merit and led to projects which were not necessarily supportive to TDRS. Funding cuts also resulted in loss of some potentially useful projects. Moreover, panel members expressed concern that there appears to be no systematic capacity to track dissemination nor to solicit user feedback on research results.

2.8 Unexpected Impacts

Provincial/territorial respondents cited several unexpected and negative impacts of TDRS. In some cases the funding structure had been divisive in the communities and broke down partnerships. This negative impact was also mentioned by several stakeholders. Provincial/ territorial respondents and external stakeholders, as well as some federal respondents, also stated that tobacco councils and groups at the community level are struggling because money they received from TDRS was taken back, and the potential closure of these councils will result in a decrease of tobacco as a priority issue in Canada.

External stakeholders also identified several weaknesses of TDRS which contributed to a number of negative impacts. Two major weaknesses were identified by all stakeholders interviewed. The first was that a large amount of money was "thrown" to the community in too short a time. These organizations were not accustomed to dealing with such large amounts of money and were ill-prepared. Some organizations also lost traditional funding sources or partners following the influx of TDRS dollars, and are now in danger of folding given that they no longer have this funding. Several stakeholders noted that their organizations had put much of their own work on hold and focused on Health Canada priorities during TDRS. Additionally, the speed with which TDRS was implemented and the fact that it lasted only three years were seen to be serious shortcomings. External stakeholders indicated that there was not adequate time at the outset to develop a solid strategy and plans for spending the money properly. A few external stakeholders expressed very strong concerns on these points, and indicated that they were unsure whether the positive impacts of TDRS would outweigh the negative.

Expert panel members echoed these concerns, with two stating that the large number of short term projects stimulated by TDRS whose significance or effects are unclear and unmeasured may have in fact served to destabilize the tobacco control environment. According to these panel members, in the long term TDRS may have weakened Canada's tobacco control capacity and thus proven counterproductive.

A second weakness leading to negative impacts was the federal government's reluctance to relinquish control. Many external stakeholders felt strongly that TDRS funds should not have been distributed by Health Canada, but rather by an arms-length, objective group or committee. This type of approach would ensure that allocation is not influenced by political or bureaucratic agendas. Furthermore, this would help shield Health Canada from criticism and provide them with more flexibility in the projects and approaches that can be undertaken (e.g., advertisements that are critical of industry).

2.9 Conclusion

Overall, TDRS is perceived as having been only moderately successful in achieving a number of its objectives. Greatest success was noted in the area of improved knowledge and attitudes, but many factors outside of TDRS also contributed to these changes. Little direct impact on risk reduction was noted, with TDRS unable to overcome the negative effects of the tax rollback. However, impacts in factors which could have indirect impacts on tobacco use were noted, including greater grass-roots involvement in smoking issues, a more forceful anti-smoking lobby, and increased pressure on smokers to quit. Unintended impacts included weakening of existing partnerships and of community infrastructures.

3. Lessons Learned and Alternatives

In this section, issues raised by all data sources regarding implementation and coordination of TDRS are discussed, as are the main lessons learned and alternatives proposed. Several problems were noted with planning and coordination, notably with provinces and territories.

3.1 Implementation and Coordination of TDRS

While half of the federal respondents did not feel they could comment on the coordination between policy and programs or the role played by the Policy and Consultation Branch, those who did comment were somewhat divided as to whether there was adequate coordination. Just over half of those who commented felt that coordination was insufficient. One respondent, however, qualified this by saying that in the second and third years there was so much activity taking place that it was virtually impossible to know everything that was going on. According to other respondents, coordination was dysfunctional and the lack of an overall plan resulted in people working in isolation.

The role of the Policy and Coordination Branch (PCB) was also not seen to be that valuable by many federal respondents and questioned by some provincial/territorial respondents. Although the lack of teamwork was not felt to be the fault solely of PCB, it was felt that PCB was too autocratic and dictatorial, sometimes giving unrealistic time frames. It was argued that PCB should not have responsibility for coordination as they lack the substantive expertise to arbitrate on tobacco issues. Instances of duplication because of lack of coordination and communication were noted. On the other hand, some respondents were satisfied with the role played by the Policy and Coordination Branch, particularly in ensuring that the activities undertaken were consistent with the interests of the Department. It was also felt that, under TDRS, coordination between branches of HC on the issue of tobacco control was improved.

Federal and provincial/territorial respondents were split over whether TDRS has been coordinated with provincial/territorial and NGOs' anti-tobacco activities. However, most respondents felt that the TDRS was implemented in a manner consistent with provincial/territorial and NGO activities. Coordination has taken place through committees such as the Canadian Council on Smoking, a working committee established with external partners on the subject of advertising and promotion, and through provinces where negotiations for joint-enforcement programs were being undertaken. A number of respondents indicated that a lot of effort had gone into consulting with the provinces and NGOs. Some respondents indicated that while there may be some overlap, this is not necessarily negative, and others noted that TDRS cooperated with the provinces in terms of promotion by pooling resources with provinces who developed campaigns which complemented TDRS.

Some provincial/territorial and federal respondents, however, did feel there was poor coordination with provinces/territories and NGOs, resulting in overlap and duplication. Some provincial/ territorial respondents indicated that although there had been attempts at coordination, in some cases it had not been completely achieved. Ad campaigns and enforcement were cited as two particular problem areas. There was the perception among many provincial/territorial respondents that there was little collaboration in TDRS — it was viewed as a federal initiative and not a national one, a bandaid solution to the tax decrease. According to other respondents, some provinces/territories do not know what the federal government is doing, and may not feel a need to know, as some provinces/territories have policy and legislation as comprehensive as the federal government. Finally, it was stated frequently that because everything happened so fast, there was no time to plan, and consequently there is a great deal of duplication. In two cases (Ontario and Nova Scotia), the TDRS sent a curriculum supplement to schools, even though there was already one done by the provincial health department.

Particular coordination problems were noted in terms of the tax rollback and sale-to-minors legislation, where the provincial/territorial direction diverged from the federal. In several cases, the provincial activities were seen to have had more impact than TDRS as they were trying to meet their province's specific needs.

External stakeholders were largely dissatisfied with the coordination of TDRS with NGOs and provinces/territories. Stakeholders also noted that consultations were heated. Several felt that overlaps had resulted from poor coordination and a lack of information sharing. Some stakeholders noted that similar projects had received funding within one province but that, due to the lack of coordination, the project groups were not aware of each other and did not have the opportunity to coordinate efforts and share information to avoid duplication.

Regarding inter-jurisdictional coordination, it was noted by expert panel members that in some instances (for example, in Ontario), there was good cooperation and complementarity between federal and provincial governments. However, considerable overlap was seen in some areas, and complementarity among TDRS initiatives was seen by one expert as being almost entirely haphazard.

Within Health Canada, federal respondents perceived TDRS to have had positive impacts on the Department, by raising the quality of discussion around tobacco issues within Health Canada, creating opportunities for branches within the Department to work closer together and by working in a much more coordinated manner than in the past.

Several research project managers in the research review had comments regarding their experience with TDRS coordination processes. One of the problems noted by these managers was a lack of communication: some learned that their project had received the go-ahead indirectly (i.e., through the media) and not directly from Health Canada. Others indicated that when planning their proposal, they were not informed of either the spending limit or the time frame. Communication between TDRS and NHRDP was perceived to be poor. Some research project managers noted having up to four NHRDP project officers during the life of the project. Although there was general support for the way research was managed by NHRDP, they felt the process needed to be more structured and have more continuity. Others suggested that because TDRS practically happened overnight, no list of research priorities had been established.

Among aboriginal respondents, there was considerable difference of opinion with regard to how well the TDRS was coordinated by Health Canada. Those at the national and tribal council levels were very pleased with the management of TDRS. They stated that they had no problems with liaising with MSB officials, nor did they indicate having any problems with the reporting requirements. Most were pleased with the funding arrangements, except that all wished they had more money. One of the national organizations had some trouble receiving funding, and had to get a personal line of credit, for which they paid interest, until their funding came from Health Canada. All had established good working relationships with MSB staff, especially those staff who were First Nation or Inuit. They generally disliked the fact that MSB officials were constantly changing positions, stating that this made it hard to establish a working relationship.

At the community level, however, there was much dissatisfaction among aboriginal respondents with the management of TDRS by Health Canada. Participants stated that they were not consulted prior to receiving information on TDRS. They stressed the fact that they are best situated to determine the health needs of their communities, and as such should have been consulted before any type of strategy was put in place. Most had never heard of TDRS, why it was implemented, or why they were approached. All simply received faxes asking them, "to put together a proposal to get some money".

These aboriginal respondents were dissatisfied with the way in which they received funding from MSB. They stated that they had to spend their own money first, then get reimbursed. This process sometimes took more than thirty days, thus communities were forced to pay interest charges on lines of credit or other bridge financing activities. They also stressed the lack of funding to combat such a large issue. All participants at the community level found the reporting aspect onerous. They felt that the amount of paperwork required was too much given the levels of funding they received. They also stated that they felt no one read their reports, especially since they never received any feedback from MSB. Community level participants also stated that they had no working relationship with MSB officials. Most had never met their project officers, doing everything by phone or fax. Much like the comment at the national level, participants were dissatisfied with the way in which MSB staff are moved around, making it impossible to develop any type of working relationship.

3.2 Lessons Learned

Five main lessons learned emerged from all the data sources in this study. First, more lead time to plan and prepare is necessary, both at the project and program level. The lack of planning and the rush to get projects off the ground has seriously compromised the coordination of the TDRS and therefore its value for money.

Second, there is general agreement that in tobacco intervention, three years is too short a time-frame to achieve significant impacts, and efforts must be sustained over a longer time-frame to impact behaviour. Therefore, programs should be developed which can sustain their resources over a longer period, even if their overall resource level is lower.

Third, collaboration and coordination are critically important. Funding decisions must be open and transparent. Target groups should be involved in developing activities. To better target youth, TDRS should work more closely with provinces/territories and school boards.

Fourth, there was some feeling that TDRS was over funded (when the original resource level and timeframe are considered), particularly since control over the allocation was poor. Long-term federal commitment to these funds was also seen as less than overwhelming, although it was the first time the federal government had made a major commitment to tobacco. It was felt that more can be done with less money, especially in terms of using the knowledge gained to the level it should be used.

Finally, more time and energy must be devoted to coordination within Health Canada, which is made difficult by the different cultures and programs throughout the department.

An additional lesson learned in the Aboriginal component of TDRS was the importance of capacity building and participant ownership of projects. These will form a solid basis for any further initiatives.

In addition to these primary lessons learned, a number of additional lessons were identified by Health Canada officials, provincial/territorial representatives, external stakeholders and expert panel members. These include:

a) In addressing target groups in community projects, it is important to take a comprehensive approach which focuses on a range of issues in addition to tobacco. For instance, projects targeting youth must deal with self-esteem, drug abuse, and how to make your way through life;

b) Regular surveillance to update consumption and prevalence data would be valuable;

c) Dissemination of project and research results and findings is critical if the Strategy is to have lasting impacts;

d) Strategies such as TDRS should be implemented through an approach which is arms-length to government (stakeholders);

e) Community projects are essential to reach target groups (but their effectiveness must be more unequivocally demonstrated);

f) In targeting the Aboriginal population, it is important to address non-traditional tobacco use within the context of traditional tobacco use; and

g) It takes time to develop community infrastructure, and community funding rules should be flexible for areas such as the territories, where NGOs are lacking.

3.3 Alternatives

The majority of respondents from all sources felt that the Tobacco Demand Reduction Strategy was the best way to achieve the objectives set out for it. Nonetheless, based on the above lessons learned, a number of suggestions were made for changes to ongoing TDRS initiative:

First, planning and coordination must be improved, possibly by revisiting the roles and mandates of existing structures. Alternative funding structures were suggested, as were changes in responsibilities within Health Canada. It was also suggested that major departmental initiatives should not be implemented during times of internal reorganization. There should be more coordination between the different initiatives of the Strategy, including better linkages between the national marketing and enforcement units and the community action officers in the regions. There also must be more consultation and a truly collaborative planning process with provinces/ territories and major health NGO's, especially when they have programs of their own. Appropriate time lines are also needed so provinces/territories can build on what is being done nationally.

Second, tobacco initiatives must be constantly reviewed, revised and updated, based on data that have been generated and now must be analysed and synthesized. Regular surveying must continue to allow tracking of trends. It was suggested that the full effects of the tax rollback have not yet even been appreciated.

Third, the recognition that massive behavioural change takes time and short term strategies fall short of accomplishing behavioral change should be concretized in longer-term planning and project support. Respondents felt TDRS would be more effective if it were a longer-term strategy with sustained funding, even if funding levels were reduced. A long-term population health approach is deemed necessary.

Overall, most respondents believe that the mix of strategies undertaken by TDRS in an overall national tobacco strategy with a population health focus was the most effective approach. Having an ongoing national anti-tobacco strategy is important to raise the profile of issues. Strategies crucial to this mix would include: simple and extremely strong legislation (applied to the tobacco industry as well as ETS); enforcement of legislation with the appropriate resources; relatively less priority on cessation; focus on youth and prevention, but from a population health perspective; international cooperation and collaboration; higher profile to research; and better division of labour between provincial/territorial and federal governments. Community projects are important but there is a need to evaluate and disseminate the best practices. The appropriate mix of strategies should depend on the needs and capacities of each province.

While the TDRS research effort can be considered to have been successful in collecting good quality data in that the results and information derived from the research are believed by project managers to be comprehensive and useful, dissemination has been noted as a problem. While gaps were noted in some of the research, this was not seen as being a weakness in the research undertaken as objectives were either met or will be met. Rather it was through the research that gaps were highlighted as well as new avenues for research identified. However, much research is still needed on economic, social and behavioural aspects of tobacco use.

Regarding Aboriginal populations, alternatives proposed for TDRS included higher funding levels as well as longer-term support. Greater administrative flexibility was also recommended. A greater capacity for conducting evaluation and sharing and follow-up of research activities were also seen as important improvements to be made.

3.4 Conclusion

The main lessons learned from TDRS have to do with planning and coordination, as well as program continuity. The overall mix of strategies within the initiative is perceived to be adequate.

This integrated summary of findings regarding strategy-wide issues for the Tobacco Demand Reduction Strategy suggests that, from the point of view of knowledgeable individuals both within Health Canada and in the external tobacco control community, the Strategy can be regarded as only a mitigated success. While considerable achievements were made in terms of community mobilization and collaboration with provincial/territorial partners, results in terms of smoking knowledge and behaviour are not yet visible. The Strategy suffered from some problems of coordination, and there is a widespread feeling that planning was inadequate and that funding was unnecessarily high. There was concern that TDRS's objectives were unrealistic given the three-year funding window.

It was suggested that to be more successful, planning, coordination and collaboration should be improved, notably with provinces/territories which already have substantial anti-tobacco activity. A longer-term strategy is required, but one which involves the same mix of strategies as TDRS in a population health perspective.

Appendices

Appendix A: Summary of Tobacco Legislation 107
Appendix B: Public Education and Awareness Projects 111
Appendix C: Community Action Initiative Projects 115
Appendix D:Summary of the Review of Research Findings
Appendix E:Tobacco Price Elasticity

APPENDIX A

Summary of Tobacco Legislation

Legislation	Legal Age	Proof of Age	Signage	Vending Machines
Federal (TSYPA)[28]	18	required	legal age	bar/beverage places
British Columbia Tobacco Sales Act	19	photo ID	health warning and decals as well as health warnings on vending machines	adult premises
Manitoba Non-Smokers Health Protection Act	18	required	federal	federal
Ontario Tobacco Sales Act	19	photo ID	- 2 ID signs - health warning on signs	prohibited
New Brunswick Tobacco Sales Act	19	photo ID or 2 IDs*	health warning	federal
Nova Scotia Nova Scotia Tobacco Access Act & Regulations	19	photo ID	health warning and legal age (4 signs)	prohibited
Prince Edward Island Sales to Minors Act	19	required	legal age	federal
Newfoundland and Labrador Tobacco Control Act	19	required	health message**	federal

* IDs must be government issued, with date of birth.

** The regulations covering the signage requirements have since been repealed. In this case, federal signage takes precedence but with an age limit of 18 years of age (rather than the provincial limit of 19 years of age), federal signage is inappropriate.

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[28] All remaining provinces would comply to the federal TSYPA legislation.

Legislation	*Fines/ Suspension	Details	Enforcement Activities
Federal (TSYPA)[29]	monetary	fines range from a maximum of $1,000 for a first offence up to a maximum of $50,000 for repeated offenses	compliance checks and surveillance (Ontario)
British Columbia Tobacco Sales Act (TSA)	suspension	1st offence: $200 2nd offence: suspension for 3 months 3rd offence: suspension for 6 months 4th offence: suspension for 12 months	generally compliance checks followed by decoy purchases on those who failed compliance checks; in some areas inspection only
Manitoba Non-Smokers Health Protection Act	monetary (to clerk who sold) suspension under the Tobacco Tax Act	- maximum of $1000 for 1st offence and a maximum of $5,000 for subsequent offences	compliance checks
Ontario Tobacco Control Act (TCA)	suspension	- ticket of $210 to the clerk selling - prosecution of premises with fines up to $10,000 and rescinding the right to tell tobacco for 6 months	surveillance
New Brunswick Tobacco Sales Act (TSA)	suspension	1st offence: $120-$2,500 2nd offence: up to $5,000 can lead to suspension or cancellation	inspections only to date
Nova Scotia Tobacco Access Act and Regulations	monetary and suspension	1st offence: up to $2,000 and suspension for 7 days 2nd offence: up to $5,000 and suspension for 3-6 months 3rd offence: up to $10,000 and suspension for 12-24 months	compliance checks since July 1996
Prince Edward Island Tobacco Sales to Minors Act	suspension	1st offence: $2,000 2nd offence: $10,000 + suspension 3rd offence: $10,000 + revocation	compliance checks since the fall of 1996

Legislation	*Fines/ Suspension	Details	Enforcement Activities
Newfoundland Tobacco Control Act (TCA)	monetary and suspension	1st offence retailer (clerk): $500 ($50) and suspension for 3 months 2nd offence retailer (clerk): $2,500 ($250) and suspension for 6 months 3rd offence retailer (clerk): $5,000 ($500) and suspension for 9 months	inspections and administrative compliance checks

APPENDIX B
PUBLIC EDUCATION AND AWARENESS PROGRAM

The following table provide the list of TDRS projects that were reviewed by Jamieson, Beals, Lalonde Inc.

PROJECT TITLE	**CONTRACTOR**	VALUE	**FOCUS**	**TYPE**
Workplace Framework: Pilot Testing of the Tobacco Reduction Framework Guide	The Merlin Group	79,440	ETS	Resource Product
Resource Development for Children and Families: Smoke Gets in Your Eyes	Canadian Living/Telemedia	419,440	ETS	Resource Product
Economic Impact of Smoking Policies/Programs on the Hospitality Sector.	Conference Board of Canada	79,875	ETS	Research Study
Strategic Planning Workshop on Environmental Tobacco Smoke	Kent Consulting	8,584	ETS	Workshop
Distance Learning Curriculum: Provision of a Reliable and Comprehensive Tracking and Reference Resource on Tobacco and Tobacco Control for Use by Health Professionals, Volunteers and Laypersons Involved in Tobacco Control Programs	University of Waterloo	127,000	Priority Populations	Resource Product
Smoke-Free Kit	Ekos Research Associates	58,788	Youth/School	Resource Product
Physicians's Attitudes and Behaviours Towards Smoking Cessation: A Survey	Canadian Medical Association	209,456	Priority Populations	Research Study
Child-to-Child Project: Testing the Impact and Sustainability of the CTS Approach in Select Primary and/or Secondary Schools in the Regional Municipality of Ottawa-Carleton; Child to Child Development of an Evaluation Framework to Examine the CTC Methodology Pilot Initiative; Introduction of the CTC Methodology to Children in the Aboriginal Community to Promote Health in the Community; Introduction of the CTC to Inuit Community (Implementation in 8 Northern Sites) & Evaluation of the Inuit Sites; Evaluation of the Child-to-Child Methodology in Ottawa Schools.	Multiple Source Contracts	515,241	Priority Populations	Resource
Tobacco Tackle: Youth for Youth - Tobacco and Physical Activity Strategy	Canadian Association for Health, Physical Education, Recreation and Dance (CAHPERD)	22,865	Youth/School	Resource Product

PROJECT TITLE	**CONTRACTOR**	VALUE	**FOCUS**	**TYPE**
Development of a Tobacco Component to a Youth Peer Counselling Manual which is Appropriate to the Aboriginal Community in Canada	Kivalig Consulting	54,033	Priority Populations	Resource
Stop Smoking Program for Women	Canadian Public Health Association	315,745	Women & Tobacco	Resource Product
Women, Tobacco Use and the Media in Canada (1989-1992); Mixed Messages: Women, Tobacco and the Media in Canada (1989-1994) (*note: PEAP 12 consists of Phase I of this project, i.e. the Mixed Messages Research Report. PEAP 30 is Phase II, the Back Talk Media Literacy Kit)*	Lorraine Greaves	120,631	Women and Tobacco	Research
Canadian Women Against Women and Tobacco (CANWAT): Development of a Women and Tobacco Network in Canada	Canadian Council on Smoking and Health	84,845	Priority Populations	Networking
Tobacco Marketing and Youth: Examination of Attitudes and Behaviour to Tobacco Industry Advertising and Sponsorship	National Cancer Institute of Canada	48,645	Priority Populations	Research
Perinatal Resource Products: Smoking Cessation Training Module for Perinatal Care Providers	Spectra Communications	149,733	Pre-Post Natal	Resource Product
Development and Testing of Tobacco Cessation Resource Products for Nurses	University of Manitoba	89,886	Women & Tobacco	Resource Product
Women and Cessation: Identification of the Cessation Programming Needs for Women to Quit Smoking	Addiction Research Foundation	86,481	Women & Tobacco	Research
High Priority Anglophone Women - Comprehensive Needs Assessment of Disadvantaged/Priority English-speaking Women	Centres for Health Promotion	260,000	Women & Tobacco	Research
Qualitative Study of Sex Differences in Acquisition of Smoking Among Pre and Early Adolescents	Addiction Research Foundation & Carleton University	75,348	Women & Tobacco	Research
Development, Implementation and Testing of Components of a Multi-faceted Intervention Program to Reduce the Incidence of Smoking and Smoking Relapse during Pregnancy and Post-partum of both Women, and their Partners.	University of Ottawa	281,268	Pre-Post Natal	Resource Product
Guide Your Patients to a Smoke Free Future: Inclusion of Women-centred Components	Canadian Council on Smoking and Health	68,005	Women & Tobacco	Resource Product
The Tobacco-Free Booklet Series for Pre-natal and Post-partum Providers Series	Chelsea Group Communications	65,547	Women & Tobacco	Resource Product
Francophone Needs Assessment & Study of Smoking Behaviours of Francophone Women	Price Waterhouse	216,171	Women & Tobacco	Research

PROJECT TITLE	**CONTRACTOR**	VALUE	**FOCUS**	**TYPE**
Diffusion d'un programme d'abandon du tabac destiné à des femmes autochotones du Manitoba, de l'Ontario, et due Québec	Hôpital général de Montréal - Habitudes de vie Santé du coeur	111,070	Women & Tobacco	Resource Product
Relief at What Cost: Substance Abuse/use and Women with Disabilities	Disabled Women's Network of Canada	53,977	Women & Tobacco	Resource Product
Quit 4 Life	Multiple contracts	941,456	Priority Populations	Resource Product
ETS Survey of Parents and Children	EKOS Research	171,597	ETS	Research
Evening the Odds: Adolescent Women, Tobacco and Physical Activity	Canadian Association for the Advancement of Women and Sport and Physical Activity	65,683	Women & Tobacco	Resource Product
Gender Sensitive Tobacco Programs: Issues and Approaches	Diane Kinnon Consulting	70,966	Women & Tobacco	Resource Product
Backtalk Media Literacy Kit	Morrison and Associates	32,000	Women & Tobacco	Resource Product

APPENDIX C
COMMUNITY ACTION INITIATIVE PROGRAM

Following are the Community Action Initiative projects reviewed by Jamieson, Beals, Lalonde Inc.

PROJECT TITLE	Sponsor	Amount	Region	Focus
Key Issues in Tobacco Control	Non-Smokers' Rights Association	1,350,000	National	policy issues
National Inuit Tobacco Use Reduction: Community Awareness and Education	Pauktuutit Inuit Women's Association	469,110	National	community awareness/edu ation
Wordless Book	Aboriginal Women's Association of PEI	24,598	Atlantic	resource product
Stop Smoking: A Program for Women	Health Heart Nova Scotia	32,550	Atlantic	program delivery
Kings Wide Initiative to Stop Smoking	Kings Wide Initiative to Stop Smoking (WKITSS)	53,882	Atlantic	community action
A Community-Based Approach to Environmental Tobacco Smoke - Awareness and Control	Smoke-Free Nova Scotia	44,000	Atlantic	community action
Province-wide Sales to Minors Compliance Analysis Action Alliances	Lung Association of Nova Scotia	89,000	Atlantic	community action
A Community-based Strategy to Address Tobacco Use	Association High and St. Michael's Parent Teacher Association	64,275	Atlantic	research
Smoke-Free Schools and Communities	School District 14	99,218	Atlantic	community action
Communities for Youth	Halifax Task Force on Drugs	130,631	Atlantic	community action
Projet d'étude des besoins des mères fumeuses	Le Centre de prévention TVDS	31,600	Quebec	research
Vaincre le tabac à Dauphine	Le maison Dauphine	50,347	Quebec	community action
Youth Action on Tobacco	YMCA	66,570	Quebec	community action
Implantation du programme "Écoute ton coeur"	Association des intervenants en formation personnelle et sociale	163,436	Quebec	community action

PROJECT TITLE	**Sponsor**	**Amount**	**Region**	**Focus**
Healthy Adolescent/Healthy Adult Program	Smokers and Quitors; Sudbury District Health Unit	42,000	Ontario	education and awareness program
Stop Smoking: A Program for Low Income Women in Lambton and Kent Counties	London Health Unit	46,023	Ontario	cessation program
YDIC Smoke Free	Kenora Drop-in Centre	92,519	Ontario	community action
Demonstration Project to Prevent the Use of Tobacco among Children and Youth in Ethno-cultural Communities	Sir Wilfred Laurier University	60,480	Ontario	demonstration project
Support for Cessation	The Coalition for a Tobacco-free Peterborough	106,850	Ontario	community action
A Multimedia Computerized Health Promotion Program for Women, Smoking and Health	University of Waterloo	125,000	Ontario	resource development
Smoke Free Communities	Algoma Best Start; Council for Tobacco Free Algoma	125,964	Ontario	community action
Using Information Technology to Engage Teens in Prevention and Cessation	University of Toronto	290,000	Ontario	resource product
Make Ours Tobacco-Free	Wellington, Dufferin Guelph, Health Unit	6,188	Ontario	community action
Stop Smoking Program for Low Income Women in Niagara	Lung Association Niagara Region	11,470	Ontario	support program
The Ex-Smokers Support Group	Lung Association of Bruce, Dufferin and Grey Counties	30,000	Ontario	community action
Projet novateur d'anti-tabagisme	Collége des Grands Lacs; Association Canadienne Française de L'Ontario	35,000	Ontario	community action
Smoke-out in the Great Southwest	Saskatchewan Community Health	9,000	Man/Sask	community action
Tobacco Reduction Strategy for Youth	Gabriel Springs Health Unit	70,000	Man/Sask	community action

PROJECT TITLE	Sponsor	Amount	Region	Focus
Youth Corps of Health Educators	Health Education Association of Saskatchewan	146,000	Man/Sask	community action
Whitecourt Community Action Initiatives	Alberta Alcohol and Drug Commisson	18,538	Alta/NWT	community action
Youth Needs Assessment	Lesser Slave Lake Indian Regional Council	10,865	Alta/NWT	community action
Environmental Tobacco Smoke in Medicine Hat	Tobacco Coalition of Medicine Hat	39,450	Alta/NWT	community action
Tobacco Free Capital Region - Phase 2	Tobacco Free Capital Region (Edmonton)	34,405	Alta/NWT	community action
Community Action Centre for Tobacco	Action on Smoking and Health	74,302	Alta/NWT	community action
Evaluation Support to CAIP Project Sponsors	Poundmaker's Lodge Treatment Centre	$49,955	Alta/NWT	other
Yukon Community Action Initiatives Program -	Public Health and Safety Department - Yukon College	316,000	BC/Yukon	community action
Puff and the Travelling Smoking Show	Salmo Community Services	$4,459	BC/Yukon	education & awareness
Wet Graffiti	Options: Services to Communities Society	39,600	BC/Yukon	resource product
Perinatal Smoking Cessation and Protection	Comox Valley Perinatal Advisory Committee	99,497	BC/Yukon	program delivery
Towards a Smoke-Free Kimberley	Towards a Smoke Free Kimberley Committee	87,097	BC/Yukon	community action

APPENDIX D

Summary of the Review of Research Findings

Project Name	Purpose	Amount of Funding	Target Group	Type of Research	Duration (months)	Completed/ Ongoing	Successfy Complet
Health Protection Branch							
Regulatory Compliance Monitoring**	1. To monitor compliance levels of retailers with respect to the TSYPA and Provincial Sales to Minors Legislation 2. Information will serve to develop retailer information initiatives and to target enforcement strategies	$69,000	Other: - retailers	Descriptive: - surveys Testing of Protection Interventions	21	Completed	Yes
Nicotine and Constituents of Tobacco and Tobacco Smoke	1. To determine changes in concentrations of nicotine, additives, heavy metals, pesticides and constituents of smoke from harvested tobacco to consumption 2. To develop standard methods for collection and analysis of chemicals in either tobacco or tobacco smoke	$1,070,000	General Public: - smokers - non-smokers - government - researchers - policy Makers Other: - manufacturers of tobacco products	Descriptive: - defining chemical toxicity of specific brands of cigarettes - evaluation of tobacco smoke yields & their determinants - physical examination of the proportions of the various sections of tobacco leaf used in cigarette construction	22	Completed	Yes
Econometric Study — Taxation, Smuggling and the Demand for Cigarettes in Canada	To evaluate the impact of price reductions and other tobacco control measures such as advertising bands, health warning messages and health promotion on tobacco consumption	$26,000	General Public	Descriptive: - econometric analysis of existing data - examination of time series data - literature review	16	Completed	Yes

Project Name	Purpose	Amount of Funding	Target Group	Type of Research	Duration (months)	Completed Ongoing	Successf Complete
Health Protection Branch							
Youth Smoking Survey	To produce estimates of Canada's smoking population, specifically children and youth 10 to 19 years of age, regarding their attitudes towards smoking and their use of tobacco products	$1,735,000	Youth	Descriptive: - telephone survey - face-to-face survey	16	Completed	Yes
Retailer Survey	To determine retailer awareness and understanding of the TSYPA and Provincial Sales to Minors Legislation	$136,000	Other: - retailers	Descriptive: - survey Testing of Protection Interventions	27	Ongoing	N/A
Legislative and Regulatory Review / Tobacco Control Blueprint Papers**	To conduct a literature review on the analysis of restrictions regarding access by minors	$564,000	Youth Other: - civil servants preparing Bill C-71, tobacco retailers	Descriptive: - literature review	12	Ongoing	N/A
Survey on Smoking in Canada	To measure the levels and changes in cigarette smoking behaviour over the 1994-95 fiscal year	$1,200,000	Youth General Public: - population 15+	Descriptive: - survey	12	Completed	Yes
Update of Tobacco-Related Health Impacts	To develop Canadian-specific data on cancer risks and overall mortality which will be useful in developing and evaluating tobacco control programs	No funding per se, only personnel time	General Public	Descriptive: - secondary data analysis	8	Completed	Yes
Estimate for Tobacco-Related Health Impacts Using Canadian Data**	To estimate overall mortality/morbidity attributable to active and passive smoking health outcomes	$193,000	General Public	Descriptive: - secondary data analysis	5	Completed	Yes

Project Name	Purpose	Amount of Funding	Target Group	Type of Research	Duration (months)	Completed/ Ongoing	Successf Complete
Health Protection Branch							
Tobacco Industry Marketing Campaign	1. To monitor a tobacco industry campaign using standard industry practices (tracking, purchases. etc.) in order to determine effect of campaign on attitudes and behaviours towards tobacco 2. To see whether advertising encourages brand switching, provides information, encourages new smokers or condone smoking	$173,960	Youth General Public: - population aged 12 years to 25	Descriptive: - survey	4	Completed	Yes
Packaging of Tobacco Products**	1. To evaluate the role of packaging as an inducement to purchase tobacco products 2. To develop a protocol for evaluation of packaging 3. To design packaging for tobacco products that will make the product less attractive	$546,000	Youth	Testing of Prevention Interventions	9	Completed	Yes
National Health Research and Development Program							
Smoking and Back Pain: A Health Issue	To estimate the extent to which smoking is independently associated with the prevalence, frequency and intensity of back pain, and related disability and handicap from back pain after accounting for important potential confounding factors	$23,793	General Public - adults Other: - people with sclerosis (abnormal hardening of body tissue)	Descriptive: - literature search - multivariate analysis of existing data base on back pain derived from a retrospective cohort study	12	Completed	Yes
Evaluation of a Community-Based Smoking Cessation Initiative	To evaluate the effectiveness of the "Quit and Win Challenge" program being run in the Kingston, Frontenac, Lennox and Addington County	$23,900	Other: - program designers, research	Descriptive: - observational study Testing of Cessation	12	Completed	Yes

Project Name	Purpose	Amount of Funding	Target Group	Type of Research	Duration (months)	Completed/ Ongoing	Succe Comp
National Health Research and Development Program							
Cultural Factors in Tobacco Use Among Ethnic Groups	To understand: 1. the cultural and social values and practice associated with tobacco use in each group 2. changes in tobacco use that may have occurred in association with immigration 3. the group's perceptions of the health risks of tobacco use and the benefits or difficulties of smoking cessation	$164,854	Priority Resistant Groups: - immigrants	Descriptive: - telephone survey - focus groups	9	Completed	Ye
Survey of Federal, Provincial and Territorial Legislators Regarding Tobacco Control Policies	1. To determine how federal, provincial and territorial legislators view tobacco as a commodity and as a health hazard 2. To determine how they regard legislation / regulation as part of a comprehensive tobacco control strategy	$265,381	Other: - health groups interested in tobacco control	Descriptive: - survey - consensus data - data from parliamentary guide	16	Ongoing	N/A
Pilot/Feasibility Project: Forecasting Reduced Smoking Behaviour for Effective Initiation of Treatment Interventions in Male and Female Inmates	1. To examine the unique factors that contribute to smoking behaviours among this population group 2. To evaluate smoking cessation interventions that have been employed to reduce the overall prevalence of this behaviour	$29,869	Priority Resistant Groups: - Aboriginals General Public: - community Other: - male and female inmates, elderly, schizophrenics	Descriptive: - autocorrelation analysis - secondary data analysis	15	Ongoing	N/A

Project Name	*Purpose*	*Amount of Funding*	*Target Group*	*Type of Research*	*Duration (months)*	*Completed/ Ongoing*	*Successful Complete*
National Health Research and Development Program							
A Family Practice Based on Personalized Smoking Cessation Intervention with Telephone Counselling	To evaluate smoking cessation interventions in the family practice setting	$199,983	General Public: - patients of family physicians Other: - physicians	Testing of Cessation Interventions	15	Ongoing	N/A
Grade 8 Students: Factors Influencing Decisions to Continue Smoking	To identify current trends in smoking prevalence and usage patterns among grade 8 students	$76,924	Youth	Descriptive: - focus groups - interviews - survey	15	Ongoing	N/A
A Case Study of Risk Factors for Lung Cancer: Interactions Between Smoking and Occupational Exposures	To investigate the role of occupational exposures in causing lung cancer and evaluate the interaction between each risk factor identified and smoking	$848,383	General Public Other: - working people	Descriptive: - survey	34	Ongoing	N/A
Smoking, Smoking Cessation, Tobacco Control and Programming: A Qualitative and Quantitative Test	1. To obtain information from former smokers about how and why they quit smoking 2. To obtain information from smokers as to why they continue to smoke and what might help them to stop	$199,840	General Public Other: - tobacco control community	Descriptive: - focus groups - survey - interviews	15	Completed	Yes
An Economic Analysis of Poor Smokers in Canada	1. To describe the impact of smoking on family living standards 2. To estimate the effects of tobacco tax increases on smoking and family welfare	$198,714	Priority Resistant Groups: - low income	Descriptive: - secondary data analysis	15	Completed	Yes
Smoking Cessation Group for Schizophrenia	To evaluate the effectiveness of the smoking cessation program of the Alberta Lung Association The results will be used to modify the program in order to meet the needs of schizophrenics	$40,253	Other: - schizophrenics	Testing of Cessation Interventions	15	Ongoing	N/A

Project Name	*Purpose*	*Amount of Funding*	*Target Group*	*Type of Research*	*Duration (months)*	*Completed/ Ongoing*	*Successful Complete*
National Health Research and Development Program							
A Test of Cohen's Hypothesis	To test Cohen's hypothesis which implicates pulmonary dysfunction as an underlying factor which contributes to an increased risk of developing neoplastic tumours at diverse sites and other adverse health effects including heart disease among cigarette smokers and individuals occupationally exposed to agents which may cause lung damage	$22,159	General Public: - individuals who have participated in research studies & service projects in the division of pulmonary medicine & the centre for Agri. Medicine, Dept of Medicine, University of Saskatchewan	Descriptive: - secondary data analysis	7	Ongoing	N/A
Les déterminants de l'intégration de l'approche écologique dans les programmes de lutte contre le tabagisme des organisations de santé publique au Canada	1. To examine the degree of integration of the ecological approach of tobacco reduction programs, aimed at six to 17 year olds, implemented by health organizations in Canada 2. To identify the characteristics associated with a greater integration of the ecological approach	$183,671	Youth General Public	Descriptive: - survey	15	Ongoing	N/A
Evaluation of a Smoking Relapse Prevention Intervention for Postpartum Women	1. To compare two interventions that have been designed to assist women to maintain smoke-free lifestyles following pregnancy	$199,991	Women: - postpartum women	Testing of Cessation Interventions	15	Ongoing	N/A

- The criteria used to determine if a project had been successfully completed was whether the project manager felt that they had met all their objectives, thereby providing them with the required information.
- These projects also received A-base funding. The funding indicated is TDRS funding only.

APPENDIX E

PRICE ELASTICITIES AND DEMAND FOR CIGARETTES[30]

Taxes on tobacco sales have been used as a source of revenue by governments in most countries over a long period of time. The effects of changes in taxes on tobacco sales, and consequently on the government revenues, have been the subject of many studies (Galbraith & Kaiserman (1995), The Department of Finance (1993), Mummery W. K. and Hagen. L.C. (1996), and Mckraken M. C. and Jacobson P.M. (1994)).

Consumption of most goods and services decreases with an increase in price and vice versa. Goods and services with price elasticities between 0.0 and -1.0 are suitable targets for increasing revenues through taxation. Most studies of short-run price elasticities of demand for tobacco have found that short term price elasticities range between -0.2 and -0.4. The use of taxation on tobacco has, therefore, been successful as an instrument for raising government revenues. Its use as an instrument for reducing the consumption of tobacco, and consequently, for implementing health policies is of comparatively recent origin.

Total prohibition or (artificially) very high prices of addictive substances create opportunities for black-market through illegal production and/or smuggling. Substantial volumes of smuggling and illegal sales of such substances, which are also available legally, result in a loss of revenues to the government. In addition, total consumption of such addictive substances may not decrease to the extent expected by policy-makers, thereby reducing the effect of an increase in tobacco prices as a health or social policy instrument.

Tobacco is an addictive substance. Sharp increases in tobacco prices in the late 1980s and early 1990s resulted in a flourishing market for illegal sales and smuggling.

Studies on price elasticities have been undertaken to estimate the quantitative relationship between changes in prices and overall tobacco consumption. However, these studies do not generally provide relevant information on the smoking behaviour of individuals in target groups.

This chapter discusses the general concept of elasticities, provides a brief survey of estimates of price elasticities from various studies and underlines the limitations of such estimates for the evaluation of TDRS. It then presents results of a preliminary analysis, by province, of the impact of changes in cigarette prices on cigarette sales and suggests ideas for future work.

The Concept of Elasticity

Smoking cigarettes, pipe and cigars, chewing tobacco, and inhaling snuff are the main modes of consuming tobacco. Cigarettes can bought either as a manufactured product or rolled by the consumers for their own use. Manufactured cigarettes are the more usual form of consuming tobacco in Canada. Data on smoking behaviour are also readily available for cigarette smokers. Most of the analysis of the effect of changes in tobacco prices has, therefore, been done using data on cigarette sales.

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[30]. The discussion in this Appendix has been prepared by Madhu Joshi & Associates and does not necessarily represent the views of Health Canada.

Federal and provincial governments have always used tobacco taxes to raise revenues. Lately, however, the accent has shifted to curbing the smoking habit by making it more costly through taxation. From the point of view of public health, the government would like to see a large reduction in tobacco consumption in response to a rise in price resulting from a higher sin tax. Studies have shown, however, that the demand for tobacco falls less than in proportion to the price of tobacco. In the jargon of economists, this is tantamount to saying that the *own price elasticity of demand for tobacco is less than one or unity*. In such a case, where the proportionate change (rise or fall) in consumption is smaller than the change (fall or rise) in price in absolute terms, revenues rise when the price is increased and fall when it is reduced.

The own price elasticity of demand for tobacco is greater than unity if consumption falls (rises) more than in proportion to a given change in price. In such a case, government revenues fall with a fall in price and vice versa. A third case, where tobacco consumption changes in exactly the same proportion as the price of tobacco, own price elasticity of demand is said to be equal to unity. In this case, revenues remain unchanged irrespective of whether the tobacco price is raised or lowered.

Price elasticity of demand can also be estimated with reference to the prices of substitutes. In the case of cigarettes sold domestically, for example, substitutes consist of fine-cut tobacco or smuggled goods. While a rise in its own price will reduce consumption of cigarettes, it could also lead to a rise in the demand for fine-cut tobacco or smuggled cigarettes. One can, therefore, calculate *cross-price elasticity of demand for cigarettes* with respect to prices of the two substitutes. This chapter, however, deals mainly with own-price elasticities of demand for cigarettes.

A distinction is made between short-run and long-run price elasticities of demand. Consider a rise in the price of tobacco occasioned by a rise in tax. Borderline smokers will probably kick the habit right away, while die-hard adherents will only gradually reduce their consumption over the years. In the new regime of higher prices, the proportion of young smokers entering the market will decrease as compared to the previous regime of lower prices. In other words, the long-run impact of a rise in price on the change in consumption will be higher than its immediate impact, say, over a year. This is tantamount to saying that the *long-run price elasticity of demand* is higher than the *short-run or one-year elasticity*.

The longer it takes for the price of tobacco to work out its effect on consumption, the longer is the so-called "adjustment lag", and the greater is the value of long-run elasticity relative to the short-run. While most studies have found a moderate lag of three to four years between the short-run and full long-run impacts, a tiny minority such as Collishaw and Galbraith (1992) have found a longer lag extending over ten years. A study by Finance Canada (1993), on the other hand, found a short-run elasticity greater than the long-run, implying that smokers overreact in reducing their consumption in the first year in response to a rise in price, and then partly restore it in future years. These points are further discussed below.

It is clear that when governments raise the sinful tax, it is useful for them to have an estimate of price elasticities of demand as a measure of the impact of their action on the consumption of tobacco and as a corollary, on revenues. Economists have conducted several studies to estimate price elasticities of demand for tobacco. They differ not only in the underlying theory or the model used, but also in the particular forms of relationships or equations specified for estimation, and the kind of data used.

Economic theory postulates that tobacco consumption depends upon disposable income, price, and also generally unquantifiable variables such as advertising campaigns for or against the habit. The particular form of the relationship estimated may, however, be linear, logarithmic or semi-logarithmic. The choice will affect estimated values of elasticity. Estimates will also differ according to whether the data are annual, quarterly or monthly; whether they are on a national or provincial basis; and whether they are on a time-series or cross-sectional basis.

The degree of sophistication in econometric techniques used to estimate models also affects estimates of elasticities. Despite major advances in the field, however, econometric estimation is still very much an art rather than a science. Practitioners agree that high-powered estimation techniques and fancy model specifications are no substitutes for good data and a sound a priori notion of the plausible values of various elasticities.

A Brief Survey of Elasticities

While there are still gaps in our knowledge of elasticities, a good deal of knowledge can be culled from various studies done so far. Despite differences in models, specifications of equations, data and econometric techniques, it is possible to discern areas of agreement regarding values of elasticities. Results of a critical review of various studies are summarised below under the following headings: (a) All Smokers, (b) Adjustment Lag, (c) Asymmetry of Price Effects, (d) Own-Price Elasticities by Cohort Groups, (e) Smuggling, (f) Structural Changes, and (g) Income.

(a) All Smokers: A survey of elasticities in Finance Canada (1993) shows that for the US, short-run price elasticities fall in the range of -0.25 to -0.50 and long-run, between -0.4 to -0.7. For Canada, the corresponding estimates are: -0.3 to -0.4 in the short-run and -0.6 to -0.8 in the long-run. The estimates imply that in Canada (or the US), for every one percent rise in the price of tobacco, consumption falls by only 0.3 to 0.4 percent in the short-run, and by .6 to 8 percent in the long-run. To achieve a targeted percentage reduction in tobacco consumption, therefore, price will have to increase by a larger percentage or the price hike accompanied by an active anti-smoking campaign.

Some studies, such as Baltagi and Levin (1986) for the US and Informetrica (1992) for Canada, give very high estimates of long-run price elasticities, at -3.1 and -1.6, respectively. Long-run elasticities in these studies are six times and 14 times larger than the short-run, instead of the general finding of two to three times. Following the convention of the art of econometrics, however, we have to go with the consensus estimates above, unless future studies consistently come up with higher values.

(b)Adjustment Lag: In the so-called partial adjustment demand models, current consumption of cigarettes is postulated to depend upon last year's consumption, own and substitute prices, and income. The coefficient of lagged consumption is called the "coefficient of adjustment" and its value measures the lag required for prices to work out their full impact on consumption. The higher is the value of the coefficient of lagged consumption, the larger is the impact of habit persistence and longer is the lag in adjusting current consumption fully to the new price. A longer lag implies that the long-run elasticity is much larger relative to the short-run elasticity.

A simple example will clarify the concept. Assume that the coefficient of adjustment is 0.66 and the equation relating tobacco consumption to income and prices is linear. The coefficient implies that irrespective of the change in income or prices, habit persistence will lead smokers to consume two-thirds of what they did last year. Further, due to this habit rigidity, a change in price will take 1/1 - 0.66 or approximately three years to work out its full effect.

Most studies have found out the coefficient of lag to be between 0.3 and 0.4, implying that 70 percent of the impact of a change in tobacco price on consumption takes place over 2 to 3 years. An exception is a study by Collishaw and Galbraith (1992) on OECD countries, which found a lag of more than 10 years (the value of the adjustment lag is around 0.9). In this case, habit persistence mainly determines current consumption over the next five years or so, with little impact of changes in income or prices. In their more recent study on Canada, however, Galbraith and Kaiserman (1995) found short-run and long-run elasticities to be almost identical, implying almost no lag in adjustment (the adjustment lag is zero).

Over all, results show that policy-makers have to wait two to three years for the major impact of higher tobacco prices to work itself through consumption.

While long-run elasticity is generally expected to be higher than the short-run (adjustment lag is between 0 and 1), a study by Finance Canada (1993) found a reverse relationship, implying an over-shooting of target reduction in cigarette consumption and then restoration back to higher desired levels over subsequent periods . The result implies an adjustment lag greater than unity. Short-run elasticity in this case is higher than the long-run. However, even in that study, the difference between the short-run (-0.70) and long-run (-0.56) elasticities is not large enough to be considered inconsistent with other studies, which imply a moderate lag of a few years.

Nevertheless, the phenomenon of short-run elasticity exceeding the long-run is an interesting one. It is consistent with the theory that consumers are "forced" to make adjustments to their consumption immediately after the change in price, but later return to their earlier levels of consumption. This could work differently for the case when prices fall from that when they rise. When prices fall, smokers could initially increase their consumption or non-smokers begin to smoke. Soon they would find that they have not obtained more satisfaction (utility) by increasing their consumption or beginning to smoke. They would then reduce their consumption to the earlier level and spend the new found extra cash on other priorities. In the case of price increases, consumers would initially reduce their consumption of tobacco. However, realising that their need for cigarettes has not been totally satisfied, they would make adjustments to other expenditures or shop in black-market to satisfy their need. Purchases in the black-market would result in under-reporting of sales of legal cigarettes and give a false appearance of reduced consumption.

(c) Asymmetry of Price Effects: Most studies assume symmetry of price effects; that is, price elasticity is the same whether one is considering a price increase or a decrease. Young (1983) assumes an asymmetric price response and calculates a short-run price elasticity of -0.34 for a price increase and -0.49 for price decrease. The elasticities imply that smokers are more prone to increase their consumption of tobacco in response to a fall in price than they are to cut it down in the event of a price increase.

(d) Own-Price Elasticities of Demand by Cohort Groups: Coate and others (1981), Harris (1982), Ferrence et al (1991) and Finance Canada (1995) are among a handful of studies which have estimated price elasticities by age-groups. They found the impact of a higher tobacco price on teenagers to be greater than for adults. Finance Canada (1993), for example, found price elasticity of demand for tobacco by teenagers to be higher at -1.0 compared to -0.5 for adults. This result is consistent with the expectation that teenagers have more limited budgets and have little room for manoeuvre to absorb price rises.

(e) Smuggling: Finance Canada (1993) used their study to estimate the amount of smuggling expected in future years. The study contends that smuggling takes place when the level of the tobacco tax rises above a threshold amount. Smokers then find it worthwhile to undertake the risk of buying contraband cigarettes. A decrease in tax, on the other hand, reduces the price differential between legal and contraband and with it, the incentive to buy smuggled goods. The same theory lies behind Galbraith and Kaiserman (1995). Their study concludes that growth of the contraband market since 1987 has created two classes of cigarettes; taxed and untaxed. They derive estimates of sale of contraband and use them to estimate equations for total sales (taxed plus contraband). Their study concludes that price elasticities for taxed and total sales of tobacco are -1.0 and -0.40, respectively. In other words, the percentage reduction in total consumption of tobacco is much smaller than in taxed goods, since smokers switch from legal to contraband in response to a tax hike above a threshold level. An implication of the study is that the government should monitor the illegal tobacco market to ensure that their efforts to curtail tobacco consumption are not vitiated by a parallel growth of the clandestine market.

(f) Structural Changes: We define the term “structural change” to refer to changes in variables other than prices and income. Examples are media campaigns, and various strategies to reduce tobacco demand. Structural changes also include changes in generational tastes and the availability of new products. Structural changes are continuously taking place even as taxes are varied by governments to affect prices. Hidden in the estimates of price elasticities are impacts of these structural adjustments.

Studies undertaken so far have not succeeded in isolating the impact of structural changes from that of prices. The only way an attempt has been made to tackle the problem is through the technique of dummy variables. The simple technique essentially omits outliers from the data in order to obtain high coefficients of correlations and reliable estimates of price elasticity. Alternately, a time-trend is used to capture the gradual evolution of anti-smoking policies such as media campaigns, changing social mores and legislation banning smoking in offices and public places. A more detailed study based on surveys at various points in time is required to meaningfully separate impacts of structural changes from those of tobacco prices.

(g) Income: Discussion so far has centred on price elasticities because governments can influence tobacco consumption by raising prices through higher taxes. Another reason for emphasising price elasticities is that several studies were unsuccessful in incorporating income as an explanatory variable. Among those successful, Galbraith & Kaiserman (1995) estimate income elasticity to be quite low, at about 0.2 in the short-run and .4 in the long-run. The Finance Canada study estimates income elasticity for cigarettes to be 0.1 and for fine-cut tobacco, 0.5. These estimates imply that most people spend only a small part of their rising incomes on pampering the smoking habit.

Scope and Limitations of the Elasticity Studies for the Evaluation of TDRS

Galbraith & Kaiserman (1995), and Mckraken and Jacobson (1994) have pointed out the shortcomings of using price elasticities based only on the sale of legal cigarettes. These studies indicate that it is important to use all cigarette sales (legal and illegal) in examining the effect of price changes on cigarette consumption. It is also equally important to use appropriate prices and quantities of supply of illegal cigarettes in the estimated model.

Factors affecting the black-market for otherwise legally sold goods include:

a) profit margins to make black-market a worthwhile venture and the availability of supply,
b) the risk of apprehension in selling or purchasing products on the black-market and attendant penalties,
c) willingness of customers, subject to ethical and other considerations, to switch to the black-market,
d) the reliability of continued supply, and
e) other factors.

The existence of the black-market essentially results in two inter-related markets, each having its own prices, supplies and characteristics. Any realistic model for examining price - consumption relationship needs to include variables to reflect both the legal and contraband markets.

Secondly, as noted above, existing models do not generally include variables to take into account effects of anti- and pro-smoking campaigns on consumption.

Thirdly, while price elasticity models developed so far are useful in examining the effect of changes in prices on total tobacco consumption, they are not useful in studying the effects of prices on specific population sub-groups; e.g., provincial populations, persons in specific age groups, or persons belonging to specific target groups (e.g., youth, pregnant women, unemployed, etc.). In other words, existing models are not useful in examining or predicting effects of price changes on the prevalence of smoking. They are essentially macro-economic models, unsuitable for a formulation of a comprehensive anti-smoking policy.

TDRS is primarily geared to induce smokers to stop or reduce smoking and non-smokers not to begin smoking. One of its prime objectives is also to make individuals in target groups (pregnant women, youth, itinerants, etc.) aware of adverse health effects of smoking or ETS. To effect changes in the smoking behaviour of specific groups at risk is very much the objective of the TDRS.

Cross-sectional and time series data on disposable incomes, smoking habits, expenditures on tobacco products (by target groups), and cigarette prices would be needed to study the effects of changing prices on smoking habits and tobacco consumption. Data from SOSIC type surveys would be ideal for such analysis.

Effect of Prices on Provincial Sales of Cigarettes

When the federal government reduced taxes on tobacco in 1994, some provinces followed suit while others kept their taxes at the same level. This created a further price differential between prices of cigarettes in different provinces. The effects of these differing reductions in taxes on cigarette sales are examined for each province using a simple model which relates per capita cigarette sales to per capita real personal disposable income and provincial real price indices for cigarettes for the period, 1981 to 1995. It would have been ideal to use cigarette consumption per smoker as the dependent variable. However, in the absence of reliable and consistent annual data on the prevalence of smoking at the provincial level, per capita cigarette sales was used as a proxy.

Provincial cigarette sales data are not available for the years, 1987 and 1988. These data were estimated by interpolating between the years 1986 to 1989. It is possible that this approximation has affected results. In the absence of firm data, however, there was no alternative to introducing this approximation.

The following simple model was used for estimating price elasticities at the provincial level. Price elasticities for each province were calculated separately.

$$C_t = \exp^a P_t^b Y_t^g C_{t-1}^d \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

$$\mathrm{Ln}\, C_t = a + b\, \mathrm{Ln}\, P_t + g\, \mathrm{Ln}\, Y_t + d\, \mathrm{Ln}\, C_{t-1}$$

where C_t is the volume of per capita cigarette sales in year t, P_t is the index of real price of cigarettes in year t, Y_t is real personal per capita disposable income in year t, and C_{t-1} is the volume of per capita cigarette sales in year t-1, a is a constant, b and g are short-run price and income elasticities, respectively, and d is the coefficient of adjustment. Long-run price and income elasticities are calculated as (b/1-d) and (g /1-d).

The constant and values of elasticities were estimated using a multiple regression technique on the logarithmic transformation of equation (1). The following regression equation was used in the estimation of price elasticities:

$$\text{Ln } C_t = a + b \text{ Ln } P_t + g \text{ Ln } Y_t + d \text{ Ln } C_{t-1} + e \ldots\ldots\ldots\ldots (2)$$

If the coefficient of adjustment d is assumed to be zero, equation (2) reduces to:

$$\text{Ln } C_t = a + b \text{ Ln } P_t + g \text{ Ln } Y_t + e \ldots\ldots\ldots\ldots (3)$$

Both the lagged (equation 2) and unlagged (equation 3) versions of the model are used in estimating price and income elasticities. Elasticities based on the lagged model are tabulated in Table 4.1 and those based on the unlagged model in Table 4.2. (presented at the end of this chapter)

The data were available for the period, 1980 to 1995. Elasticities were calculated using data for period, 1981 to 1993 (1980 data were not used because of the unavailability of 1979 sales figures). The estimated equation was also used to forecast cigarette sales for the years 1994 and 1995, two years following the reduction in taxes and the introduction of TDRS. The purpose of this analysis was to compare differences between estimated and observed sales for the years 1994 and 1995.

Analysis of Provincial Elasticities

Detailed tables of the analysis (Tables 4.1 to 4.3) are included on pages 60 to 62.

Table 4.1 gives estimates of price and income elasticities of demand by province on the assumption that there is a lag in the adjustment of desired tobacco consumption to actual levels (equation 2). In this model, the coefficient of adjustment is assumed to be non-zero and short-run elasticities differ from their long-run values. Long-run elasticities are estimated as the short-run divided by one minus the coefficient of adjustment. Given the small sample size, however, it is doubtful whether it is possible to obtain a reliable estimate of the coefficient of adjustment. Table 4.2, therefore, estimates elasticities on the assumption that the coefficient of adjustment is zero (equation 3). This model assumes an instantaneous adjustment of actual tobacco consumption to its desired level so that short-run and long-run elasticities are identical. Table 4.3 compares predicted values generated by elasticities in the two tables with observed values in order to find out which of the two models generates more accurate forecasts.

An analysis of results in Tables 1 (lagged version) and 2 (unlagged version) leads to the following conclusions:

1. The coefficient of adjustment (d) reported in Table 1 is not statistically significant from zero for all provinces except Newfoundland. Even for that province, the coefficient is quite low (0.156) indicating almost instantaneous adjustment of desired to actual tobacco consumption. While we may not believe actual quantitative estimate of d in view of the small sample, but only their qualitative or directional implications, it can be concluded that the lag in the adjustment of desired consumption to its actual value is quite moderate, say, not more than a couple of years. This is an encouraging conclusion for formulating a policy to reduce the smoking habit through higher tobacco prices brought about by higher taxes.

   Small sample size may be one reason for the failure to estimate the lag. Another reason, a related one, could be the high correlation between the price of tobacco and lagged consumption. In Ontario and Quebec, for example, coefficients of correlation between the two variables are 0.95 and 0.92, respectively. This makes it difficult to estimate their separate impacts. A larger sample size could break multicollinearity and make it possible to derive a reliable estimate of the coefficient of adjustment. Till then, it is safe to assume the consensus estimate of a moderate lag.

2. The coefficient of tobacco price, which measures price elasticity, is significant for all provinces in both the tables. The remarkable thing is that the estimates computed from the unlagged version (Table 2) are quite close to those estimated from the lagged version (Table 1), confirming the former values. The modal values of elasticities fall within the range of -.5 to -.6, supporting the evidence from the survey above that price elasticities are significantly below unity.

3. The coefficient of the income variable is not significantly different from zero for a majority of provinces in either table. In fact, it is significant with the correct positive sign for only one province (Manitoba) in the lagged model and for two provinces (Manitoba and Nova Scotia) in the unlagged model. Income elasticities for these provinces are close to or lower than price elasticities. This result is consistent with the evidence from the survey that income elasticities of demand for cigarettes are significantly below unity.

4. The almost ubiquitous statistical significance of the price variable, unlike the income variable, implies that tobacco price is a more pervasive and consistent determinant of tobacco consumption than disposable income.

Elasticities in Tables 1 and 2 were estimated using data till 1993. Table 3 uses these estimates to predict cigarette consumption by province for the years 1994 and 1995.

An analysis of Table 3 shows that both the models generally overestimate consumption in 1994 and 1995. The result could imply that media campaigns and a gradual tightening of spatial restrictions on smoking offset the impact of a decline in cigarette prices. This conclusion applies with particular force to Ontario, Quebec, Manitoba, New Brunswick and P.E.I., which had matched the federal initiatives to lower taxes to combat smuggling.

Secondly, overestimation is higher in 1995 than in 1994 implying that the impact of anti-smoking initiatives had spread to a larger proportion of the population in 1995 relative to 1994, or that the message was more forcefully seeping into the peoples' psyche, inducing them to make drastic reductions in smoking

Thirdly, Alberta is the only province where the models consistently underestimated actual consumption in the two years. The reason for this result could be found in the general attitude of Albertans towards smoking and the effectiveness of anti-smoking campaigns in that province.

Suggestions for Future Work

When the Federal Government reduced its taxes on tobacco in 1994, New Brunswick, P.E.I, Nova Scotia, Ontario and Quebec followed suit. The remaining five provinces did not reduce their taxes. This created a differential in prices of tobacco products among the provinces. Further analysis could be undertaken pooling provincial data into two groups according to whether the provinces matched the federal tax reduction or not. This pooling of data will provide more observations for estimating elasticities.

Moreover as described above, there is a need for more relevant disaggregated data in order to get a better insight into the effects of price changes on the smoking behaviour of special cohort populations. Such analysis could, for example, provide information on the quantitative effects of prices on the smoking behaviour of youths between the ages of 10 and 18, pregnant women, and people in different occupations. Different groups have different incomes, live/work under different environments and have different attitudes towards the smoking habit.

A study of differences in responses of the these groups to price changes could provide additional valuable input to the formulation of a more realistic and effective anti-smoking policy and initiatives.

Table 1

Results of Estimation of Elasticities Using a Model With Lagged-Adjustment

		Prices		Income		Last Year's Sale		
Province	Constant	Elasticities	T-Value	Elasticities	T-Value	Elasticities	T-Value	R-Squared
Canada	11.634	-0.557	-5.33	-0.208	-0.73	0.053	0.39	0.985
B.C.	12.656	-0.642	-5.62	-0.076	-0.33	-0.196	-0.91	0.991
Alberta	3.698	-0.332	-2.32	0.317	0.83	0.298	1.17	0.977
Sask	8.633	-0.566	-10.13	0.147	0.56	0.009	0.15	0.990
Manitoba	4.419	-0.542	-7.59	0.557	2.10	0.038	0.44	0.990
Ontario	13.144	-0.498	-3.20	-0.501	-1.20	0.185	0.79	0.969
Quebec	14.100	-0.551	-9.46	-0.478	-2.11	0.057	1.11	0.990
N.B.	6.694	-0.373	-2.72	0.095	0.18	0.217	1.57	0.969
N.S.	5.981	-0.563	-9.85	0.467	1.45	-0.041	-0.66	0.984
PEI	9.751	-0.460	-9.39	-0.121	-0.37	0.139	1.64	0.983
N.F.	19.830	-0.583	-10.62	-1.132	-3.90	0.156	2.07	0.981

Regression Equation used in the estimation of coefficients:

$$\text{Ln } C_t = a + b \text{ Ln } P_t + g \text{ Ln } Y_t + d \text{ Ln } C_{t-1} + e$$

using data for the years 1982 to 1993. Degrees of Freedom = 8

Table 2

Results of Estimation of Elasticities Using a Model Without Lagged-Adjustment

Province	Constant	Prices Elasticities	Prices T-Value	Income Elasticities	Income T-Value	R Squared
Canada	11.458	-0.607	-24.81	-0.123	-0.53	0.987
B.C.	9.186	-0.556	-28.27	0.092	0.45	0.990
Alberta	7.698	-0.489	-18.45	0.220	0.69	0.978
Sask	8.831	-0.574	-31.41	0.137	0.73	0.992
Manitoba	5.641	-0.557	-29.09	0.466	2.25	0.991
Ontario	13.697	-0.625	-16.60	-0.348	-1.04	0.973
Quebec	12.987	-0.634	-25.24	-0.275	-1.23	0.988
N.B.	5.789	-0.566	-14.94	0.456	1.15	0.966
N.S.	5.024	-0.535	-23.63	0.520	2.04	0.986
P.E.I.	8.133	-0.543	-19.04	0.198	0.64	0.979
N.F.	20.888	-0.677	-17.49	-1.080	-3.55	0.975

Regression Equation used in the estimation of coefficients

$$\mathrm{Ln}\ C_t = a + b\ \mathrm{Ln}\ P_t + g\ \mathrm{Ln}\ Y_t + e$$

Coefficient of adjustmen is assumed to be zero for this model, using data for the years 1981 to 1993.
Degrees of Freedom =10

Table 3

Observed Cigarette Sales and Estimated Sales Using Models with and Without Adjustment Lag
By Province for 1994 and 1995

Model	Observed Sales 1994	Lagged Estimated Sales 1994	Unlagged Estimated Sales 1994	Observed Sales 1995	Lagged Estimated Sales 1995	Unlagged Estimated Sales 1995
Province						
Canada	1562	1637	1696	1539	1720	1748
B.C.	1175	1397	1351	1082	1434	1368
Alberta	1781	1334	1410	1624	1380	1431
Sask	787	1368	1372	868	1387	1391
Manitoba	1315	1385	1402	1039	1401	1422
Ontario	1665	1638	1863	1704	1830	1945
Quebec	1793	1771	1925	1763	1910	1964
N.B.	1171	1415	1603	1298	1544	1665
N.S.	1548	1555	1526	1583	1641	1622
P.E.I.	1363	1495	1548	1519	1606	1617
N.F.	816	1281	1330	774	1305	1359